The Mining Journal,

RAILWAY AND COMMERCIAL GAZETTE:

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

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GEOLOGICAL SURVEY OF VICTORIA.

Recognising the accuracy of Sir Henry De la Beche's view that palæontological researches form so essential a part of geological investigations, such as those conducted by the Government Geological Survey, that plates and descriptions of fossils should form part of the Geological Memoirs, because they constitute a needful portion of the publications of the Geological Survey, the executive of the Geological Survey of Victoria have wisely commenced the issue of a prodomus of the palæontology of the colony* in decades or numbers of ten plates each, with corresponding letter-press on the plan of the Decades of the Geological Surveys of England, Canada, India, and several other Governments. As practical utility is the chief object in view, the decades are to contain figures and descriptions, in the first place, of the more characteristic fossils of each formation, of which good specimens may be in the National Collection; so that observers in the field may make use of them for preliminary or approximate determination of the geological ages of the strata they may meet.

The first decade contains two plates of species of graptolites, from which Prof. McCoy was enabled to determine the Lower Silurian geological age of the slates containing the Victorian gold reefs. Then follow three plates illustrative of the extinct fossil wombats from the gold cement of Dunolly, &c., which first enabled him to show that their gold drifts, like those of Russia, were of the age of the mammaliferous crag of the English pliocene tertiary period. Then follow two plates of the singular volutes, representing the volutilites of the Barton clay formation of Hampshire, which, amongst others, enabled him to fix the place of the tertiary formations, extending from the shores of Hobson's Bay to the Murray in that debatable *étage*, newer than the eocene tertiary, and older, by Lyell's percentage test, than the miocene, for which modern geologists have proposed the new intermediate geological period, the oligocene. Then comes a plate of the cycadeous plants, not found in the palæozoic coal fields, but so abundant in, and characteristic of, the rich oolitic or mesozoic coal fields of India, China, Richmond, in Virginia, &c., as well as in the less rich coal seams of the same age in the great oolitic of Yorkshire and other parts of Europe, and which, among others, led him to class the known Australian coal deposits in the mesozoic age. Next, a plate is given, illustrating one of the most highly characteristic genera of fossil plants of the palæozoic coal formations, never found in the mesozoic deposits, and figured from the Avon sandstones in Gippsland, which he has accordingly identified as upper palæozoic or carboniferous; and, lastly, a plate illustrating two new species of fossil star fish from the Upper Silurian rocks.

The various fossils figured are accompanied with such complete and interesting descriptions that there will be every encouragement for practical men to study the palæontology of the colony, and the result is likely to prove alike valuable to the miners individually, and to the colonial community generally. The Professor is entitled to great credit for the way in which the decade is produced, and it will undoubtedly be very extensively read.

THE RESOURCES OF CALIFORNIA.

Although for the moment American mining enterprise generally is unfavonrably looked upon by British capitalists, owing to the extremely unsatisfactory results which have attended recent investments in Utah and the neighbouring States, enough has been done to prove that the resources, mineral and other, of the Western States are enormous, and that by the exercise of sound business forethought they are fully capable of profitable development. California, as the first settled of the great metalliferous mining States, will ever possess a certain amount of attraction to miners, and if for no other reason than this the new edition of Mr. Hittell's work† will be sure to secure a large number of readers. Knowing how much more easy it is to attract attention to business matters by offering the facts concerning them in an interesting form, Mr. Hittell has been careful to make his volume thoroughly readable, his chapters on the climate and scenery being no less acceptable, even to the miner, than those on mining, geology, botany, and zoology. Referring to the rivers of the Sierra Nevada, he remarks that the low land of the Sacramento basin is drained by the Sacramento running from the north, and the San Joaquin from the south. They meet and unite in the centre of the basin at 38°, and break through the coast range to the Pacific, forming the bays of Suisun, San Pablo, and San Francisco on their way. Part of the Sacramento Valley shows terraces, the farthest from the river being a coarse gravel. The richest soil is on the immediate bank. The great body of the valley is bare of trees; its even surface is broken only in one place by the "Buttes," a range of volcanic hills six miles wide by 12 long, with three peaks about 2000 ft. high, which rise in lonely abruptness from the middle of the plain in 39° 20'. Mr. Hittell speaks very favourably of the Chinese, remarking that it is said the Chinamen should not be tolerated because they are an inferior caste; they do not learn our language or customs, they send away the money of the country, they make no improvements, they pay few taxes, and they are immoral pagans and enslaved. Yet the only slavery among them in California is an honest compliance with their contracts entered into freely. They pay their debts incurred for their passage money, and that is a kind of slavery that might prevail more extensively among other nationalities without hurting them. After pointing out their many good qualities, Mr. Hittell continues that if California wants them to study her interests she should study theirs. The highest triumph of statemanship consists in bidding successfully for men, and the grossest of all political blunders have been committed by driving away industrious, skilful, peaceful, and honest workers. France and Spain by such mistakes enriched Holland and England; and, perhaps, California can enrich Oregon or British Columbia in a like manner. The reference to the climate of the State is not less interesting, but it may be summed up in the remark of Schlagintweit that "the climate of California resembles in general character that of Italy, but has not its objectionable effect of depriving the people of the disposition and power of energetic physical labour. The *dolce far niente* of the southern Italian is unknown in California.

But it is the chapters on commerce, manufactures, and mining and allied pursuits that will be more especially attractive to the readers of the *Mining Journal*. Referring to the profits of gold mining, he very fairly says that gold mining has been profitable to the miners is shown by the fact that the business has been maintained now for nearly 25 years; and those who were engaged in it as a class have abundant reason to be pleased with their experience. The American Union, as a whole, has been greatly benefited by the mines, which though they drew away a large number of the most intelligent and active men from the Atlantic slope yet gave a wonderful stimulus to all branches of industry, called out energies that would otherwise have been dormant, attracted hundreds of thousands of immigrants, gave the nation increased influence in the world, and poured into her lap more riches than had ever before been derived from one source within so short a time of its start, and by so few labourers. The addition of $1,000,000,000 in gold to the wealth of the nation within less than a quarter of a century by 50,000 miners contributed much to raise America to the position which she now holds in the industry and commerce of the world. As hydraulic mining has recently attracted most attention in England, it may be well to repeat what he says upon the subject. Most of the gold of the placer mines of California is obtained by hydraulic washing—that is, throwing water under a strong pressure against the banks of auriferous gravel, which is then carried by the water into a sluice. The hydraulic process is applied only in claims where the dirt is deep, and where the water is abundant. If the dirt were shallow in the claim and its vicinity, the necessary head of water could not be obtained. Hydraulic claims are usually in hills. The water is led along on the hill at a height varying from 50 to 500 ft. above the bed-rock to the claim at the end or side of the hill, where the water playing against the dirt soon cuts a large hole with perpendicular, or at least steep, banks. From the top of the bank a hose or iron pipe extends down to the bottom of the claim. The hose is of heavy duck, sometimes double sewn by machine. When full it is from 4 to 10 in. in diameter, and will bear a perpendicular column of water 50 ft. high, but a greater height will burst it. Now, as the force of the stream increases with the height of the water, it is a matter of great importance to have the hose as strong as possible; and for this purpose in some claims it is surrounded by iron bands, which are about 2 in. wide, and are connected by four ropes, which run perpendicularly down. The rings are about 3 in. apart. The "crinoline hose" thus made is very flexible, and will support a column of water 150 or 200 ft. high. The pipe at the end of the hose is like the pipe of a fire-engine hose, though usually larger; sometimes the pipe will be 8 in. in diameter where it connects with the hose, and not more than 2 in. at the mouth; and the force with which the stream rushes from it is so great that it will kill a man instantaneously, and tear down a hill more rapidly than could a hundred men with shovels. One or two men are required to hold the pipe when it is to be held, but usually it is supported on a framework. These remarks, however, apply mainly to the small claims; in the larger ones the water is brought down the hill in iron pipes, whence it passes into a patent nozzle, which will discharge 300, 500, or 800 in. of water through an orifice from 4 to 8 in. in diameter the speed in consequence of the pressure being ten times as great as at the top of the hill. Such a stream, under a head of 300 or even 500 ft., has terrific force, and will make boulders 1 ft. through jump 20 ft. into the air when it strikes them.

The manner in which the miners bring the water to bear upon the bank, the quantity of dirt that can be washed, and the quantity of water used, are then referred to, but from the above enough can be learned of the general attractiveness of the book. As the present high price of quicksilver appears to afford an excellent opportunity for capitalists to undertake the development of quicksilver mines, it may be mentioned that Mr. Hittell tells us that quicksilver is one of the leading metals of California in industrial value, its total yield surpassing that of silver obtained from the argentiferous lead added to that separated from gold. Mercury occurs in its metallic form in some porous rocks near St. Helena, from which it can be shaken out, but the market is supplied by mines of sulphuret or cinnabar, the richest deposits of which are at New Almaden, New Idria, Knoxville, Pope Valley, Vallejo, and various places in Sonoma county. Cinnabar is found at many points in the cretaceous rocks on the coast range from Santa Barbara to Shasta. The geology, palæontology, botany, zoology, &c., are all fully treated of; and the almost innumerable facts stated are given in so concise and readily accessible form, that whether one requires to ascertain to what extent any particular resource is developed in the State, or what resources are likely to be capable of more profitable development, the volume will render him material aid in arriving at reliable conclusions.

* "Prodomus of the Palæontology of Victoria; or, Figures and Descriptions of Victorian Organic Remains." Decade I. By FREDERICK MCCOY, F.G.S., &c., Government Palæontologist and Director of the National Museum of Melbourne. Melbourne: By authority: John Ferres, Government Printer.

† "The Resources of California; comprising the Society, Climate, Salubrity, Scenery, Commerce, and Industry of the State." By JOHN S. HITTELL. San Francisco: A. Roman and Co. London: Trübner and Co., Ludgate Hill.

PROTECTION OF INVENTION.

Whether it be determined ultimately to follow the example of Holland, Switzerland, and Turkey, and abolish patents altogeter, or to imitate America, and give to inventors what many consider more than their just right, there can be no doubt that at present inventions are acknowledged to be worthy of recognition as tangible property, and the knowledge of the means by which that class of property is secured to the inventor is, therefore, essential to everyone. Under the title of "Handbook of Patent Law, British and Foreign, with a chapter on Trade Marks," a very useful little manual has been compiled and published by Mr. W. Phillips Thompson, of Liverpool. The hint given under the head of general rules relating to British patents are extremely useful, since they show not only who will be entitled to the right in case of concurrent invention, but also explain what kinds of inventions are patentable, and what are the respective rights of employers and employees in case of inventions by the latter. Mr. Thompson's remarks on the subject of searching are especially appropriate. He suggests that before applying for protection an exhaustive search should be made through previous patents, to see if the invention be really new. Any invention can be patented, and yet the patent be invalid, owing to the invention having been previously known or patented. Three quarters of the patents taken out at the present time are entirely worthless from this cause. The fact is well known to all patent agents, but without special arrangements the difficulty of making a thorough search through the 69,000 patents already enrolled is almost insurmountable. The cost of a search varies according to the nature of the subject. A range of from one to four guineas should cover any ordinary case. Should the patent be proceeded with the few patent agents who systematically search usually make no separate charge for the duty, but include it in the charge for provisional protection. His hints upon the other steps to be taken and formalities attended to in order to secure the patent are equally lucid.

With regard to patents in foreign countries, Mr. Thompson gives very full information, including a statement of the population of the state or country which the patent covers, average cost, and conditions upon which the grant can be secured and held. Referring to German patents, the very curious fact is mentioned that they give the sole right of making the patented article or of using the patented process or machinery, but not the right of prohibiting the importation and sale of articles which are like the article or made by the patented process. This arrangement would certainly remove the ground of complaint sometimes urged by the anti-patent-law advocates in this country, for it must be obvious that whilst importation is permitted the alleged excessive charge by patentees for articles manufactured under their patents would be impossible, whilst it is probable that the inventors of this country would not object to such a provision provided they were empowered to claim a royalty of 5 per cent. upon such imports. In the Cape of Good Hope, where the patent laws are certainly not illiberal, only about two patents were taken out yearly till the discovery of the diamond fields, and even now they are very few. The concluding hints to inventors and suggestions how to sell a patent, and the appendix on the Laws relating to Trade Marks, will be found particularly useful. The manual is a very valuable one, and gives evidence of having been prepared with much care, and with a thorough knowledge of the subject.

PRACTICAL SUGGESTIONS TO INVENTORS.—There can be no question that in the protection of invention by patent, the experience of the patent agent, to whom the compliance with the legal formalities is entrusted, is of the first importance to inventors; for it will be readily understood that no amount of searching through the mere specifications filed can be regarded as equivalent to even a brief search through the private records of an agent of acknowledged integrity and experience. The old-established firms have not only assisted in securing the patents, but have likewise, owing to the ordinary business having compelled them for the protection of their clients to study the minutest details of the inventions both of their clients and of those opposed to them, acquired such a knowledge of the weak and strong points of previous patents that their assistance is invaluable to the inventor of to-day. Messrs. ROBERTSON, BROOMAN, and Co., whose names have become identified with the interests of patentees, not only from their experience as agents having exceeded half a century, but also from their long connection with the *Mechanic's Magazine*, have just issued a new edition of their "Practical Suggestions and Advise to Inventors," which, although brief, contains really all that the inventor desires to know. They recommend the employment of an agent of known respectability and practical experience, and caution their readers not to be fascinated by low charges, which they very accurately define to mean "inability and carelessness." The duration and cost of patents in the various countries in which they are granted are concisely given, and they furnish a considerable amount of very useful information. The pamphlet is one which all intending patentees should carefully peruse.

DRAUGHTSMAN'S HANDBOOKS.—From the rapid way in which business is now conducted it is by no means an uncommon occurrence for the pupil to fail to obtain all the information necessary to enable him to manipulate his tools and materials to the best advantage, but any shortcoming in this respect may readily be remedied by the study of Mr. André's Draughtsman's Handbook,* which gives such practical hints as the pupil would receive from the most careful instructor. To render the book alike useful to the draughtsman and to his pupil it has been divided into two parts, the first explaining and illustrating the principles and practices of the art, the second the application of the principles prevously learned, and giving such information as relates directly to the duties of the practitioner. Each of the 12 chapters contains as complete an outline of the subjects treated of as need be desired. The chapter on the drawing office and its furnishings is followed by one on geometrical problems; then lines, dots, and their combinations, as used to represent the various kinds of surface to be indicated upon plans, the use of colours being treated of in the succeeding chapter with equal clearness, the first part closing with a chapter on shading. The second part, describing applications, treats of lettering, bordering, and north points, scales, plotting, civil engineers' and surveyors' plans, map drawing, mechanical and architectural drawing, and copying and reducing. There is a page of trigonometrical formulae, some useful tables, and an excellent index. The plates explaining how various physical features, natural object, and materials to be noticed should be drawn are beatifully executed in ordinary and chromo-lithography as required, and the entire volume could scarcely be made more practically useful or more complete.

* "The Draughtsman's Handbook of Plan and Map Drawing, including Instructions for the Preparation of Engineering, Architectural, and Mechanical Drawings." With Numerous Illustrations and Coloured Examples. By GEORGE G. ANDRE, C.E., M.S.E. London: E. and F. N. Spon, Charing Cross.

THE LAW.—The commencement of the legal year has been judiciously chosen by Mr. F. G. M. Wetherfield, of Lincoln's Inn, barrister-at-law, for the issue of "The Law; a Monthly Magazine of Legal Matters, for the Profession and the Public," Messrs. Lockwood and Co., of Stationers' Hall Court, having undertaken the publication. There are original articles on the Effect of the Judicature Act, the Future of the County Courts, the Registration of Bills of Sale, the Mayor's Court, London, and the Law as a Monopoly; in addition to which there are Legal Notes and Reviews. The supplement of Useful Statutes contains three Acts of the present year—the Married Women's Property Act Amendment, the Infants' Relief, and the Attorneys' and Solicitors' Acts. Judging from the first number, the magazine will prove as useful as it is interesting, and as there is promised for the December number original articles on the Junior Bar—its Position and Prospects, Law Reform in the Time of Cromwell, the Bankruptcy Law, Transfer of Real Property, and the Adulteration Acts, together with Legal Notes, Reviews, and a Supplement of Useful Statutes, it seems probable that the "Law" will be acceptable to a very large class of readers, and prove a great success.

Lectures at the Royal School of Mines.

FIRST PRINCIPLES OF CHEMISTRY.

The First Course of Evening Lectures, delivered to working men, in connection with the above Institution, was commenced by Dr. FRANKLAND, F.R.S., on Nov. 2. The subject was "The First Principles of Chemistry;" the lectures being delivered in the Lecture Theatre of the Royal College of Chemistry, in the new buildings adjoining the South Kensington Museum. As usual, the attendance was very good—in fact, as many attended as could be accommodated.

In his first lecture Dr. Frankland illustrated the difference between the chemical force and the other principal forces which act on matter. He said the principal forces acting on matter are gravitation, cohesion, and the force of chemical affinity. Gravitation affects matter as a whole—as, for example, a piece of ice, if unsupported, will fall to the earth by the action of this force. The force of cohesion acts as a bond between the individual particles of matter, holding them together more or less, but it can be overcome both by mechanical force, and more especially and more readily by the force of heat. We can overcome cohesion by mechanical force in this way; we will bring down on to the surface of this vessel of water the lower surface of this glass disc, which forms one pan of this balance; we find it is held to the water by a force which we can measure by placing weights in the other scale pan. I place in a weight of about 2 ozs., and it is not sufficient to draw the plate away, so that you see there is a considerable force acting between the glass and the water. I will put on 20 grammes more, and it just suffices to tear away the glass. But this might be done in two ways—either the plate has been torn from the water, in which case the surface of the plate should be dry, or the layer of water adhering to the plate has been torn away from the layer beneath, in which case the plate would be wet. On examination we find that the latter is the case, and therefore we have indeed succeeded in overcoming the cohesion existing between the particles of water.

We can also overcome this cohesive force by means of heat. You know that if heat be applied to a mass of ice, where the cohesion is so great as absolutely to lock the particles together, we convert it into liquid water, where the particles have a greater freedom of movement—in fact, the cohesion between them has been weakened. If we employ a still greater degree of heat than what is necessary to convert the ice into water, we can still further subdue this force of cohesion. If we expose water to a certain degree of heat the water boils—that is, it becomes converted into a colourless and invisible vapour called steam. What is usually called steam, however, is not really steam at all; it is a cloud of little spherules of water, condensed from the steam, which float for a time in the air; and in converting the water into steam we have overcome the last traces of cohesion, and the particles of the water now no longer hold together at all. I want you now to observe that in all these changes of water the character of the water is not essentially altered. In the last experiment we converted water into steam, but we find that when the steam is allowed to cool it reproduces water with all its properties unimpaired; and as steam it still possesses the two most remarkable properties of water—its negative properties of not burning, uninflammability, and not supporting combustion. I hold a lighted taper in the steam, and you see the steam does not take fire, nor will it allow the taper to burn in it, but extinguishes it, and these two properties belong also to water.

When steam returns to the state of water there is a remarkable alteration in volume—an enormous condensation. I can show this experimentally, by closing this tin vessel, which is now filled with steam from a little water boiling in it, and now I will condense the steam by pouring cold water over the tin, and you see the pressure in the vessel is so reduced that the atmosphere forces in the sides of the vessel. By the action of heat, then, we have advanced step by step in the conquest of cohesion. The experimenter would now wish to push this further, and see what effect would be produced by using a much higher temperature. We will try the experiment by applying a temperature compared with which that of an iron furnace is coldness itself. I mean the temperature of the electric spark. We get by this means a mixed gas, which is evidently not steam, because we are collecting it over cold water, and it does not collapse. On proceeding to examine its behaviour with regard to a lighted taper (which you will remember refused to burn in the steam, or to ignite the steam) we find it burns with explosive violence, so that we have effected a still further change in the water, and on cooling this product we do not get back the steam we had before; we have, in fact, here been dealing with the chemical force. The essential characteristic of the chemical force is this—that it changes the character of bodies on which it acts, whereas the force of gravitation or cohesion does not affect their character.

Let us pursue this subject further, and to do so let us employ electricity in another form—*i.e.*, not as a spark, but as a voltaic current, and such a current we will send through the water in this vessel. Immediately a number of bubbles of gas are seen to form on the two platinum plates with which the ends of the wires from the battery are connected. We will collect the gas proceeding from each plate separately in these two cylinders, and examine them, but as they collect you cannot but notice the difference between the amount of gas in each cylinder, and on looking closely at the plates you will see that the gas is given off from one much faster than from the other. The relation between the two quantities, as you may see after we have allowed the action to go on for a definite time, is as two to one. As far, then, as volume is concerned, the two plates perform different functions in decomposing water. Do the products differ in properties too? To the gas collected in least volume in the one tube we apply a glowing splinter of wood, and you observe it bursts at once into flame, but the gas itself does not burn; this gas, then, is a supporter of combustion. The gas which came off in greater quantity burns quietly, with a blueish lambent flame, when a light is applied to it; it is an inflammable gas. Thus we have succeeded in decomposing water into two separate parts, both very different in properties from water—for example, both are gases at ordinary temperatures, whereas water is a liquid below its boiling point. We have, indeed, taken the water to pieces, and obtained from its decomposition two different kinds of matter, which possess very different properties. The methods we have employed up to this point have been pure force, without the intervention of other kinds of matter; but now I will take the water to pieces by other methods, which depend essentially upon chemical action, and not upon heat or electricity. In these methods, however, we must content ourselves with the separation of only one element at a time; we cannot get out both the constituents of water at once, as in the preceding methods. And, first, we will try to get out the inflammable constituent, which I may as well tell you now the chemist calls hydrogen. We employ for the purpose a metal called sodium, which, when thrown into water, drives out the hydrogen; and, as before, we find this gas burns quiety, and not explosively. We might have employed instead of sodium a somewhat similar metal called potassium, but the latter not only drives out the gas, but develops so much heat as to set the gas on fire. Now, let us try to replace the other constituent of water—the supporter of combustion—which the chemist calls oxygen. The process is not quite so easy as in the case of the hydrogen, and the apparatus is somewhat complicated. We proceed in this manner—we act on steam in a red-hot porcelain tube (embedded in a charcoal furnace) by means of chlorine, a gas of which I shall have more to say in a subsequent lecture, and we are collecting some gas in this cylinder over cold water. On testing it we find that it re-ignites a glowing splinter of wood, and thus we recognise it as oxygen.

We have thus analysed our water: we have proved that it is not

a simple substance, but that it can be converted into two other kinds of matter—an inflammable gas, and a gas which supports combustion without itself inflaming. We ought to proceed to verify our result by putting together these two pieces again, and seeing if they will re-form water. The chemist knows that this oxygen is present everywhere in the air, and if we bring hydrogen into contact with it we have the two constituents of water present, but they have no tendency to combine together without the aid of a strong heat (not so strong, of course, as that we employed for their separation). Here in this case we have a jet of hydrogen burning in the air, and if we hold over it a cold glass jar the jar rapidly becomes bedewed with moisture, and we could let this go on for a time till little streams of a clear liquid (which we could easily prove to be water) began to trickle down the glass. In this glass we have some of the liquid collected from a similar experiment which has been in progress for some time, and on dropping into the liquid a small piece of the metal potassium it bursts into flame, proving to us that the liquid is water. But in these two experiments you might object that there were other substances present besides oxygen and hydrogen, and therefore it was not absolute proof that it was only those two which were really employed. But in this closed glass vessel we have nothing else present except those two gases, and on passing an electric spark through the mixture you perceive a bright flash of light fill the jar, and the glass previously clear is covered with moisture; by repeating the experiment several times we could collect sufficient to prove the resulting compound to be water.

We have found that two volumes of hydrogen and one volume of oxygen are produced when we decompose water by a current of electricity, and these are just the proportions in which you require to mix the two gases in order to reproduce water. It is found that if you have an excess of either gas, that excess remains behind after the proper proportions have combined, and thus for the production of water exactly two volumes of hydrogen and one volume of water are required. But there is another question we might ask—What is the relation between the volume of steam (that is, water in a gaseous condition) formed and the volume of mixed gas which is used in its formation? We cannot measure this by the decomposition of the given quantity of steam, because it is not possible to decompose the whole of the steam; we can, however, perform the reverse experiment, and convert a definite volume of the mixed gas into measure, and observe the relative volumes. For that purpose we employ a U-shaped table; the top of one of the limbs is sealed up, and by means of mercury a definite quantity of the mixed gas is enclosed. An electric spark is sent through the mixture to effect the combination, and to prevent the condensation of the steam this arm of the tube is surrounded by the vapour of amylic alcohol, a liquid boiling above 100° C. After adjusting the level of the mercury in the tube, it is readily seen by help of these india-rubber rings that the gases in combination have contracted in volume, and that the volume of steam occupies only two-thirds of that of the gases before combination. We are justified, then, in concluding that when two volumes of hydrogen and one volume of oxygen combine to form water, two volumes of water (as steam) are formed, or the water formed is exactly equal to that of the hydrogen employed, the oxygen becoming, as it were, absorbed by the hydrogen.

SOUTH STAFFORDSHIRE AND EAST WORCESTERSHIRE INSTITUTE OF MINING ENGINEERS.

THE INDIAN COAL FIELD.

At the last monthly meeting of the above Institute the following interesting letter on our Indian Coal Field was read by Mr. HENRY JOHNSON, jun. (the secretary). The author is Mr. WALTER NESS, late a Member of the Institute, and now in India as a Government Mining Engineer: —

Warora, Sept. 22.—If I have not met the desires of the Institute by sending particulars of what we are doing here towards the development of this coal field, it is not for want of keeping you well in mind; but, in the first place, I am expected to send the "block" of information I gather on the spot to the Government—there after I suppose I am at liberty to send "chips" to my friends. Then I notice that the Sandwell Park has turned out such a great luck-penny that the whole Institute, and your father in particular, must feel very much pleased and gratified. With this I intend sending you a section of the measures where we are fixing the colliery, on the top of which I have also put a section of the plant we are now working with, and the outlines of the additions in course of erection.

I will learn out the history of this place from January, 1870, to date. The measures, as you will observe from the section, present very little variety. All over the surface of the ground there is from 6 ft. to 10 ft. in depth of what is called Black Cotton soil, which in dry weather "rives" and opens up everywhere like the fissures produced by a heavy charge of gunpowder in soft standstone. To build anything in the shape of even a pit-cabin you require to go to the bottom of this for a foundation, or else you may expect to find the walls laughing at you in less than six months; the other trouble with this article is the facility with which it takes in water. Underlaying this is a yellowish clay, mixed with concretionary nodules, called Kunkur throughout India, and from which mostly all lime for building purposes is made. Unfortunately, this clay-bed is not impervious, and underneath this there is about 150 ft. of soft sandstone—so soft that you can slice it with a spade. This rarely occurs in layers, but generally in a homogeneous mass, as if some denuding agency had been going on, and no doubt had gone on, to the north of this, and brought down the sedimentary deposit, which we now find overlaying the coal. Underneath this sandstone we have a few feet of carbonised shale, and then the coal. The shale appears to have been silt at one time, and now with only a crack or fissure here and there. That may be accounted for by its becoming consolidated, and little or no appearance of stratified lines such as we find in the coal measures in Britain. You will also from the section observe that where we are sinking the shafts there are three seams of coal, of an aggregate thickness of 29 ft., throughout the 1000 acres or thereabouts that have been proved by boring. We do not find this state of things general, and at no place are the measures between the seams of coal so thick as where we are now sinking. In places the seam of coal is nearly 50 ft. in thickness, with only about 1 ft. of carbonised clay intervening. It has "web" and "backs" like other coal, and from these we get an abundance of water (from 500 to 600 gallons per minute, and only about 200 ft.), but no fire damp. There is no parting for a holing in the bottom.

Underneath the coal we have a soft white sandstone of several hundred feet in thickness, with very few, if any, organic remains; indeed, all the measures I have now described are remarkable for their absence of fossil remains, and all lead almost conclusively to the belief that the organic matter from which the coal was formed did not live and grow in position, but was drifted from the wooded plains on the higher land, and deposited where we now find it. We occasionally meet with a piece of trap-rock, with rounded edges, embedded in the intervening shale, giving undoubted proof of having been long and hard travelled ere it came to where we now find it—on the outcrop. We find another evidence of the formation having taken place in a basin or lagoon. The coal does not come out to the edge of the sandstone measures, but appears sometimes to come up to the edge of a steep bank, as like as you can conceive the banks of a river or side of a lake to be, having now deep, then gently sloping sides, and again a partial plain. So in the filling up of the same we find the lower coal bed occupying a less or greater area respectively than those of more recent date, nor are these basins continuous, but as if this present field had been a still pool, having its length from north to south greater than its breadth from east to west, and having on the southern boundary a barrier limiting the field in the meantime, but only to find a repetition of the same a few miles further south, forming, so far as I can see, a series of pools, reminding one of the appearance of the lakes on our school maps of North America from Lake Huron to St. Lawrence, only instead of being 200 to 300 miles in length, and half this breadth, being only 1000 to 2000 acres each, but the one we are immediately concerned in will yield quite 20,000,000 tons of coal, which must serve at least for a couple of generations to come. Instead of the St. Lawrence, we have here the Godaverz, and no doubt but coal fields of a few hundred acres in extent will be found all along its sides that have been formed in pools, it may be 50 to 100 miles from its present bed, and prior to the river assuming its present limited width. The quality so far as we have proved it, which proof I think may be taken as the average of what is likely to be general throughout the field, is as under:—

	Ness.	Tween.	Ness.
Volatile combustible matter	28·5	30·8	38·0
Fixed carbon	57·0	52·7	48·0
Ash	14·5	16·5	14·0
Total	100·0	100·0	100·0

In addition to the above, I made another analysis, fresh from the pit, to ascertain the quantity of water, &c., in the coal in a saturated state, and also dried at 120° Fahr., with the following results:—

Coke, 56·7	Volatile combustible matter	33·75
	Fixed carbon	43·70
	Ash	13·00
	Moisture	9·55
	Total	100·00
At 120° Fahr., 2·5 per cent. loss from moisture was noted.	Sulphur in coal	0·25
	Specific gravity	1·3
	1 cubic foot will weigh	81·25 lbs.
	27·5 cubic ft. will weigh	1 ton.

From these particulars it will be seen on comparison that the proportion of ash and water is in excess of the majority of coals in use in Britain; but it may also be noticed that the fixed carbon is in excess, which is a redeeming feature, although not to the extent necessary to bring it up to the standard of English coal in effective power; but it must be remembered that to continue to use English coal in the centre of India entails a heavy toll for carriage, even after it reaches Bombay, and on that score alone there is, if the effective units are taken *pro rata*, a balance in favour of using this coal, nor do I think I am at all pitching a high standard for it in saying this much.

Seeing, then, that there is a good proportion of the most essential constituent of coal in this, I am hopeful that it will be, by a little re-arrangement and adjustment of the fire-bars, and, it may be, of the fire-box, found suitable for other purposes besides generating steam in a locomotive, although this is the first important purpose to which it is to be applied, and to facilitate which a branch line of railway is now being extended to the works to carry off the produce thereof. I hope to be able to send you another letter by-and-bye, when we get nearer the working state, which need not be many months now. I see from the *Colliery Guardian* that you are going to have a public test of hand coal-cutting machines, and the Council of the Institute to be the judges. May I, as an old member, put in a word? I am as much interested in this as I could have been in any other position. You will have had the test over ere this leaves India, and may have settled which is the best, and, if you have taken everything into account, you will have found that the best is not equal to one ordinary pikeman. We cannot create power. The machine must have a greater modulus than the pick in the hand of the man acting direct with the tool, so to speak, and as for the position the man has to assume in plying the pick I am persuaded this will be easier for him than to have to turn both himself and also a necessarily cumbrous machine. Compressed air or, if possible, something better, which I doubt if it can be had, must be used to do the physical part of the work, and use the man to guide the tool—many improvements in which may be made, and I am doubtful if such a machine as the one at the Pelsall Coal and Iron Company's Works can be surpassed. I hope it may. Supposing I had just made these remarks at a monthly meeting called for the purpose of discussing the merits of coal-cutting machines, what might be the reply? WALTER NESS.

Registration of New Companies.

The following joint-stock companies have been duly registered:—

NEW PEOPLE'S COAL COMPANY (Limited).—Capital 20,000*l.*, in 1*l.* shares. To carry on business as coal owners and coal merchants. The subscribers (who take one share each) are—J. J. Frew, M.A., 18, Hanover-square; W. S. Terris, Cornwall-road, Bayswater; J. Bond, Providence Wharf, Lambeth; G. S. Jealous, Holly Mount, Hampstead; G. Lebbis, Hand-court, Holborn; T. Roberts, Cumberland-terrace, Lloyd-square; J. Hasker, 36, Tavistock terrace.

APPLEBY IRON COMAANY (Limited).—Capital 100,000*l.*, in 10*l.* shares. To carry on business as miners, maltsters, &c., in the county of Lincoln. The subscribers are—Allan Gilmour, Kilmarnock, 900; J. Gilmour, Kilmarnock, 450; J. Wood, Portland Villa, Troon, 450; G. Anderson, Tremoleswortb, Kilmarnock, 930; J. Gilmour, Elmbank, Kilmarnock, 450; J. Gilmour, Crookedholme, Ayr, 300.

BURLEIGH ROCK BORING COMPANY (Limited).—Capital 20,000*l.*, in 10*l.* shares. To carry out an agreement relating to a certain invention for improvements in machinery for drilling rock, &c. The subscribers are—A. Hamilton, 100, King-street, Manchester, 10; T. H. Jenkins, York-street, Manchester, 10; J. Littlewood, York-street, Manchester, 10; R. Cameron, Bond-street, Manchester, 10; R. Mottram, King-street, Manchester, 1; C. Galloway, Knott Mill Ironworks, Manchester, 10.

TY PICCA COLLIERY COMPANY (Limited).—Capital 15,000*l.*, in 10*l.* shares.—To acquire the Rhondda seam in the parish of Lanuanno, Glamorganshire. The subscribers (who take one share each) are—G. W. Wood, Sambrook-court; W. Frost, Bedford-street, Bedford square; W. P. Hollis, Leytonstone, Essex; W. E. Glover, Bath-street, E.C.; F. W. Barton, Providence street, City-road; H. Briscoe, Pontypridd; and W. J. Ward, Camden-road, N.W.

AUSTRALIA DIRECT STEAM NAVIGATION COMPANY (Limited).—Capital 500,000*l.*, in 20*l.* shares. The subscribers to this company (who take one share each) are—F. A. Buchannan Crauford, United Service Club; W. G. Trend, Wimbdon House, Petterton-road, Highbury New Park; D. Miller, Hereford road, Bayswater; J. Robertson, Ormonde House, Highbury; W. B. Dick, Norreston House, near Glasgow; T. Backhouse, 5, Austinfriars; J. P. Cheyne, Woodstock-road.

FALSTAFF HOTEL COMPANY (Limited).—Capital 20,000*l.*, in 5*l.* shares. To acquire the Falstaff Hotel, Manchester. The subscribers are—H. Greenwood, Deansgate, Bolton, 1; W. Fliterop, Bolton, 1; Charles Siddons, 39, St. George's-road, Bolton, 1; W. Hall, Farnworth, 1; J. Comann, Deansgate, Manchester, 400; J. Pharoah, Stockport, 10; W. Crankshall, Bolton, 1.

BLACKROD SPINNING AND WEAVING COMPANY (Limited).—Capital 50,000*l.*, in 5*l.* shares. To acquire a cotton mill at Blackpool. The subscribers are—J. Smethurst, 51, Leyland-road, 200; J. Greme, Fern House, Clitheroe, 100; H. Williams, Pemberton, 1; W. Waddington, Ince, Lancashire, 100; R. Dewhurst, Clitheroe, 100; and H. Smith, Blackrod, 100.

SOUTHPORT PARCELS AND LUGGAGE COMPANY (Limited).—Capital 25,000*l.*, in 5*l.* shares. To convey or store luggage, &c. The subscribers are—C. J. Fox, Southport, 50; G. H. Hyde, Southport, 50; T. P. Griffith, Southport, 10; J. Hilton, Southport, 50; J. Boyd, Southport, 10; W. Darbyshire, Southport, 2; and J. T. Roberts, Southport, 2.

EDGESIDE HOLM COTTON SPINNING AND MANUFACTURING COMPANY (Limited).—Capital 60,000*l.*, in 5*l.* shares. To carry on business as cotton spinners, &c., at Newchurch. The subscribers (who take one share each) are—J. Munn, jun., Newchurch: H. W. Clegg, Haslingden; S. Scholefield, Newchurch; J. C. Cunliffe, Newchurch; H. Pickup, Newchurch; R. Ashworth Coute, Waterfoot; and R. Hardman, Facit, near Bacup.

WILLIAM AND GEORGE OPENSHAW (Limited).—Capital 40,000*l.*, in 100*l.* shares. To purchase cotton mills, &c., at Pinhole, Lancashire. The subscribers are—W. Openshaw, Bury, 50; George Openshaw, Bury, 50; W. Rumney, 44, George-street, Manchester, 50; E. Micklow, Castlehead, 50; T. C. Davies, Bury, 50; James Sorbie, Manchester, 50; and T. O. Openshaw, Bury, 25.

GABOWEN COLLIERY COMPANY (Limited).—Capital 16,000*l.*, in 100*l.* shares. To carry on coal mining operations at Whittington, Salop. The subscribers (who take five shares each) are—W. W. Boulton, Andman, near Stourbridge; W. Corbett, Cumberland Hall, near Stourbridge; G. A. Trotter, Kimer; E. S. Haines, Stourbridge; J. Humfrey, Halesowen; R. Groucott, Kingswinford; and J. L. Holland, Stourbridge.

BRITISH, COLONIAL, AND FOREIGN PROPERTY INSURANCE CORPORATION (Limited).—Cadital 1,000,000*l.*, in 5*l.* shares, of which 20,000 will be first issued. To carry on a general insurance business. The subscribers (who take one share each) are—J. R. Banner, 3, Mincing-lane; T. Clark, 17, Queen-Victoria-street; F. G. Dewing, Metropolitan Buildings, Queen Victoria-street; W. Perks, 35, Seething-lane; E. Rooks, 85, Gracechurch-street; Luke Bishop, 10, Queen-street-place; and J. Bridges, Lavender Hill, Clapham.

CRICKHEATH LEAD AND COPPER MINING COMPANY (Limited).—Capital 14,000*l.* in 2*l.* shares. Mining in the parish of Oswestry is the object here. The subscribers (who take one share each) are—T. Rowe, Red Lion court; W. Willis, 134, Camden-road; W. White, 25, Finsbury-place; G. P. King, 6, Watling-street; J. E. Beales, York-street, Portmor-square; W. P. Turner, Little Britain; T. H. Ames, Asylum-road, Peckham.

ITALIAN SULPHUR COMPANY (Limited).—Capital 5000*l.*, in 1*l.* shares. To advance money to the Cesena Sulphur Company (Limited). The subscribers are—J. Stamforth, 29, Prince's Gate, Hyde Park, 1000; Adolphe Dreyfus, Paris, 1700; Wolfgang M. Scheyer, Paris, 2000; C. Cervesse, Paris, 40; Pierre de q'Harcotte, 20; H. Labouchere, Pope Villas, Twickenham, 50; J. Earnson, 93, Wood-street, 14.

ST. DAVID'S LEAD MINING COMPANY (Limited).—Capital 10,000*l.*, in 1*l.* shares. For Mining in Wales. The subscribers (who take 50 shares each) are—H. Sunderland, Waterloo-street, Birmingham; W. Richardson, Balsale Heath, near Birmingham; J. Walford, Birminghnm; S. Amphlet, Edgbaston; E. Pickering, Edgbaston; H. G. Quilter, Aston; and W. Howell, Birmingham.

SUTTON LODGE CHEMICAL COMPANY.—Capital 60,000*l.*, in 100*l.* shares. To carry on business as chemical manufacturers at St. Helen's. The subscribers (who take one share each) are—J. Cannington, Ford street, Liverpool; E. Cannington, Liverpool; E. Bramwell, St. Helen's; J. Shaw, St. Helen's; W. G. Bennett, Prussia street, Manchester; J. C. Cannington, St. Helen's; A. R. Cannington, Ford-street, Liverpool.

ECHOES FROM THE MINING MARKET.

The market has scarcely been so active as last week, although tin stock remains firm, and shares in the leading mines appear to be rather scarce. Colliery shares are still being absorbed by the public, the sudden change in the weather and consequent upward tendency of the coal market having had a stimulating effect upon investors, who can now buy on rather favourable terms. Copper mine shares are a little easier, but as there are strong symptoms of a further improvement in the metal, low-priced shares are in pretty fair demand. This has been particularly the case in Parys Mountain shares, as they would be largely affected by any rise in copper.

The statistics of the tin trade for the month of October show a satisfactory increase in the demand. Prices have appreciably advanced, consequent, it is said, upon the extended requirements of our home smelters, who have taken some very large quantities. So far we have a cheering state of affairs. On the other side, however, we notice that imports have been high, those from Australia having reached 1000 tons. It does not seem likely that we shall yet awhile witness (what is so much wanted for the home trade) any material diminution in imports, therefore for an improvement in tin we must look rather to increased demand. It is a matter for congratulation, therefore, to notice that this is actually taking place.

Foreign mine shares, with the exception of Richmond, have partaken of the general quietude, and but little has been done in them. Richmond shares have advanced upon further favourable telegrams, but the present price is scarcely the best that has been seen during the week. The mine, however, is turning out very large quantities of ore, although apparently of a very low grade.

A little reaction has occurred in Peevor shares, consequent, probably, upon some holders taking their profits. The latest accounts, however, show that the mine continues very rich for tin. The old men's workings in the bottom of the 48, west of shaft, have now been cleared up, and a good lode of tin opened out, one pile of stuff weighing some 3 tons produced, it is reported, 6 cwts. of ore. The lode in question is valued at 40*l.* per ton.

It is announced that Mr. Thomas Pryor, of Redruth (purser of Peevor and other mines), has been appointed purser of West Seton, in the place of Mr. Oliver Matthews, deceased. The appointment was generally expected. The mine is reported to be looking poor at present, and a loss of about 300*l.* has been made on the three months' working. There is still over 700*l.* to the credit of the adventurers. The committee of West Chiverton, having at last succeeded in passing their resolutions to turn out the existing staff of officials, have convened a confirmatory meeting for the 1st prox. It appears, however, that Capt. Richard Nancarrow will be continued as underground agent. The meeting on the 7th inst., as might be expected, was of decidedly a personal character, and imputations of falsehood were by no means scarce.

The unfortunate mode of procedure of the West Chiverton committee in the matter of their staff has apparently infected a portion of the adventurers in South Condurrow, who are making an attempt to turn out their officials also. The circular embodying the complaints against the management were only sent to those known to be favourable to the change, without any consultation of the remaining body of adventurers. We think the present managers of the mine have good reason to complain of such unfair proceedings, and we are glad to notice that some of the shareholders are offering strong opposition to the entire proceedings.

JAMES H. CROFTS.

THE MID-CORNWALL MINES.—The property belonging to these mines, situate in St. Austell and Roche, is about to be disposed of.

Meetings of Public Companies.

WEST WHEAL SETON MINING COMPANY.

The general meeting of shareholders was held on the mine on Tuesday, Mr. P. P. SMITH in the chair.

The usual preliminaries having been disposed of the accounts were submitted, showing a loss on the three months' working of 302*l.* 9s., which, deducted from 1057*l.* 12s. 2d., the balance at previous account, left a credit of 755*l.* 3s. 2d.

The CHAIRMAN having referred in very kind terms to the loss they had sustained in the death of Mr. O. Matthews, and having put the motion for the adoption of the accounts (which was agreed to), said that the next business was the election of purser. So far as he knew there had been two candidates in the field, Mr. Pryor and Mr. Walter Pike. Both of them were of great intelligence and large experience, and so far as he was concerned the election of either would have been perfectly satisfactory. However, it would be for the adventurers, after hearing what he had to say, to decide. A neutral friend had suggested that it would be extremely desirable to prevent any unseemly contest, and that in order that the respective strengths of the candidates should be ascertained, their promises should be submitted to him (Mr. Smith). That was done, and he found that Mr. Pryor had the largest promises of support. Upon that Mr. Pike, acting in that honourable and straightforward manner which he (Mr. Smith) had felt sure would distinguish him, had withdrawn his candidature. It was a part of the arrangement under which he (Mr. Smith) undertook to look through the promises that whoever had the largest number should be proposed from the chair, and accordingly he begged to propose Mr. Pryor.

Mr. HIDDERLEY seconded the motion, and after a brief discussion Mr. Pryor was unanimously elected, his salary being fixed at 7*l.* 7s. per month.

Mr. PRYOR, in acknowledging his election, expressed his obligation to the Chairman and adventurers. He hoped that as purser he should give satisfaction to the shareholders generally, and he could assure them that nothing would be wanting on his part to advance the general interest.

Mr. Tippet, who has looked after the accounts since Mr. Matthew's death, and of whom Mr. SMITH spoke in the very highest terms, was voted 10 guineas.

The CHAIRMAN said the next business referred to the appointment of a third agent in the room of Capt. Pascoe, who had resigned. At the last meeting Capt. Josiah Thomas, of Dolcoath, was appointed manager. There were then three agents, but now there were only two, and Capt. Thomas desired to be authorised to appoint the third agent himself. They would certainly have the fullest confidence in anyone whom Capt. Thomas might appoint.

Capt. PASCOE said this did not look as if Capt. Thomas had much confidence in the present staff. Capt. Bath had been on the mine 20 years, and a more honest, hardworking man there was not in the county.

Capt. JOSIAH THOMAS, in reply to a question, disclaimed any imputation upon the present agents. At the same time if he undertook the management of the mine—which he had in no way sought, and which he would rather be without—he must have as the third agent a man in whom he had confidence. He could not be always on the mine; he could not go over to it more than two or three times a week, and go underground oftener than about once a month; and he could not, therefore, take the management unless under the condition stated.

After some further discussion the motion was carried, and Capt. Thomas definitely accepted the management.

GREAT EAST FOXDALE SILVER-LEAD MINING COMPANY.

The ordinary general meeting of shareholders was held at the offices of the company, Seel-street, Liverpool,

Mr. TIMOTHY HUGHES in the chair.

Mr. THOMAS HUGHES (secretary) read the minutes of the last general meeting, which were thereupon confirmed. The directors' report was taken as read. The report from the agent of the mine was read, as follows:—

Oct. 28.—You are aware that my appointment as agent to the above mines dates from June 6 last, consequently my remarks for the general meeting commence from that date. The 86 fathom level has been driven 9 fms. 1 ft. (making a total length from the engine-shaft of 11 fms.); the lode has been intersected, and is at this point about 7 ft. wide. It has been driven both east and west about 9 fms., and in both ends there is valuable silver-lead ore, at times 4 in. wide solid, and has every appearance of continuing. It is evident from the well-defined and regular walls of the lode at this depth and the increased quantity of ore that the formation below is more settled than in the levels above, and leaves little or no doubt of its turning out to be a productive and rich lode in depth. In the 53 there is no driving going on at present. In the roofs of this level east there is a valuable but short stope, now being worked with every prospect of its lengthening as we go up. The 40 east has been driven upwards of 21 fms., yielding occasional stones of lead ore and blende. The last 10 fms. have been extremely wet, and the underlie changed from north to south. I was in hopes of meeting with an improvement in this level ere now, but up to the present time there is no discovery of importance. The indications holding favourable the driving is still going on. This is the only level driving on the Crown property, and it is now about 125 fms. east of the engine-shaft. The old engine shaft has been cleared out and repaired from the 53 to the 68 fm. level, which has greatly improved the ventilation in the bottom of the mine. We have also put in ladders, and it now serves as a footway. It has also been repaired, and ladders put in from the 30 to the 40 fm. level. A sump or winze from the 15 to the 30 fm. level has also been cleared, repaired, and ladder-way put in. In doing this we discovered some good bunches of ore, which have been partly taken away. The old shaft between the 40 and 53 is still full of stuff. If we had this opened out and repaired we should then have a double ladder-way from the 15 fm. level to the bottom of the mine, which would be very serviceable in case anything occurred in the engine-shaft. We should now prepare to sink the engine-shaft for another and deeper level, which should be pushed down with vigour to the 58, or 15 fms. below the old bottom, where a good deposit of ore may be expected. I have little faith in following the old men's workings; I believe more in going into virgin ground. At surface we have new dressing floors and a lead storehouse, and have already cleaned up and ready for market about 8 tons of silver-lead ore, and there yet remains to be dressed about 4½ tons—making together from 12 to 13 tons from the stuff raised before my appointment. There is a little chats, &c., left, which we cannot conveniently dress by hand, valued at 10 cwts. Since then I estimate we have raised about 5 tons, mostly taken up of late. The number of fathoms driven and stoped is about 42. Old shaft and sump cleared and repaired 40. The average number of men employed underground is 20; on surface (washers included), 7. I have much pleasure in being able to conclude this report by expressing it as my opinion that you will at no distant date open out a rich, lasting, and profitable mine.—EDWARD BAWDEN, Jun.

The CHAIRMAN said he was glad to state that the report which had just been read, although a cautious one, was the best they had yet received from the mine. He regretted that the directors could not speak more favourably of the returns of dressed ore; however, he considered that, on the whole, the report was a very satisfactory one, and showed that there had been a large amount of work done, and a fair extent of ore ground opened out. He had every confidence in the new agent, Capt. Bawden, and trusted that as he had now completed the dressing-floors he would be able to keep them going. As far as his own convictions went he felt sure that the mine would be a great success, and he hoped that before the next general meeting they would not only be paying costs, but dividends also. He would now propose the adoption of the report and balance-sheet as presented.——Mr. COWIE moved, and Mr. MATHER seconded, that the report and balance sheet as presented be received and passed, which was carried unanimously.

Capt. BAWDEN then replied to questions from some of the shareholders respecting the value of the drivings in the new levels, and the probabilities of soon being able to keep the dressing-floors constantly at work. He said he had every hope that in the course of two months they would be in a position to make regular returns of ore for market, and he felt certain that when the shaft was sunk another 15 fms., so as to drive a new level to reach the ore going down from the 68, they would find the lode increased in width and richness. He spoke from experience and from the knowledge he had of the district, for he had worked for many years as underground agent at the Foxdale Mines; and he could safely say that as far as at present seen the lode cut in the 68 promises to be as rich as any in the district. Depth alone was required to make the mine a good and lasting one.

Mr. WALKER proposed, and Mr. BARKER seconded, the re-election of the retiring director, Mr. G. McKerrow.

The CHAIRMAN suggested that as some of the shareholders considered that the present qualification for director was limited to the holding of too high a number of shares, it would perhaps be advisable to reduce the qualification.——After a discussion on this point, Mr. WHARRIE proposed, and Mr. BERTENSHAW seconded, that the qualification for director, be the holding of 100 shares, which was carried.

It was proposed by Mr. MORTON that the general meetings be held annually instead of every six months, and that the time for holding them be in the first week of October, also that quarterly reports be sent to the shareholders. The proposition was seconded by Mr. ORMANDY, and carried.

Mr. COWIE then proposed, and Mr. WHARRIE seconded, the re-appointment of the auditors, Messrs. John S. and Robert Blease, which was carried unanimously.

A vote of thanks to the Chairman terminated the proceedings.

CHICAGO SILVER MINING COMPANY.

The adjourned ordinary meeting of shareholders was held at the offices, Finch-lane, on Nov. 6,

Rear-Admiral Lord JOHN HAY, C.B., in the chair.

The SECRETARY having read the notice convening the meeting,

The CHAIRMAN said that, after the long time that had elapsed, the directors had the pleasure of presenting the shareholders with reliable accounts made up to June 30, the delay having arisen entirely through the company's operations being carried on at a distance. He believed he and his colleagues also had entire confidence in the integrity and ability of the staff employed in Utah. It was no doubt within the knowledge of the majority of those present that at the meeting held in March the directors were obliged to present approximate accounts, those that had been received from Utah to that time being unreliable as far as the classification was concerned, consequently in those now presented several alterations would be observed, some good as regards their financial position, and some the other way; but he had entire confidence in the correctness of those now presented. On a former occasion the shareholders had been informed that they had, in the erection of furnaces, ropeway, and other permanent improvements, not only exhausted the capital subscribed for that purpose, but had found it necessary to appropriate a considerable amount of the profits earned; these works had been completed and paid for, so that all future profits would be available for the payment of dividends. The mine at present consisted of two shafts—the Chicago and Rambler—the former has obtained a depth of 853 ft., and the latter 653 ft. The output, there was no doubt whatever, had not been so large as expected, nor the quality so good as the original assays had led them to believe, but from recent advices an increased output was anticipated. At the meeting, in March, a shareholder questioned the propriety of erecting two furnaces, but from what had come to their knowledge there could be no question that it was sound policy to have

done so, as smelting in itself was a very profitable business, and one on which they could safely calculate, while mining was uncertain. Numerous mines were being opened in the vicinity of their furnaces, from which they could purchase ore, and in a short time a railway from Salt Lake City would run through the works; this would be an immense advantage to the company in the rates paid for freight to and from that city, which was their commercial centre. The shareholders were aware that a payment had recently been made on account of dividend, small it is true, but still out of profits consisting of good assets in Utah and cash remitted here. In making this payment the profits for September and October had not been considered. He thought the affairs of the company were improving. The directors had given them every care and attention, and the shareholders might rely on their continuing to do so. He moved the adoption of the report and accounts.

The motion having been seconded by Mr. MELLOR,

Mr. MUTTLEBURY said he would like to know what the profits had been for July, August, and September. He objected to the payment of small dividends at intervals, and thought it would have been better to have kept the money in hand, and put into the smelting branch of the company's business, and extend that. He also thought the price paid for the mine was excessive, considering it had not turned out nearly so good as represented.

Capt. Morrison, Mr. Andrews, Mr. Canton, and Mr. Walker also put questions, and it was suggested that directors should communicate with Mr. Godbe, with a view to his returning some portion of the fully-paid shares which were given him in part purchase of the mine, so as to considerably reduce the very heavy weight with which it was undoubtedly burdened; or, in the event of his not being able to do that, to give the company some of the other mines which belong to him. The shareholders considered he was bound in common honesty to do something of the kind.

The CHAIRMAN stated that the net profits for July were $6000; August, $6000; and September, $5500; and promised that the board would communicate to Mr. Godbe the opinions expressed by the meeting.

The motion adopting the report and accounts was put, and carried unanimously.

Mr. J. H. Richardson was elected an additional director.

A vote of thanks was passed to the Chairman and directors for their able management of the company's affairs, when the proceedings terminated.

PANULCILLO COPPER COMPANY.

The eleventh ordinary general meeting of the shareholders was held yesterday at the London Tavern,

Mr. JOHN PENDER, M.P., in the chair.

The notice calling the meeting was read by Mr. J. S. Alexander, the secretary; the directors' report was taken as read.

The CHAIRMAN said it was quite unnecessary for him to go into details, because the report set forth very fully the present condition of the company. No doubt last year had been a very disastrous one, but the report showed very clearly how the losses had occurred; it showed also that under the same circumstances (of course taking into consideration the reduction in the price of coal, the improvement in the lay of the lode, and other savings), instead of being a losing the mine ought to be a paying concern. There were gentlemen present who understood the question of the copper market much better than he himself did, and there was no doubt that the future of this mine depended in a great measure upon a fair price being obtained for copper. The establishment was in a most efficient state, and in every respect it could be worked economically. The mine showed some considerable improvement, and just as Mr. Heatley was closing his official letter he said:—"As I write the mines are looking very much better. In the South Mine there is beautiful yellow ore, giving up to 15 per cent., but it will take time to prove." Of course, if this turned out to be correct it changed very much the future of the mine, but there was no confirmation of the report up to the present time. Therefore, they must simply take the facts as they were before them, and they were simply these—the last half-year they lost upwards of 20,000*l.* The causes of the loss were patent, but he believed they had now the opportunity of making good their loss if the price of copper was maintained. Therefore, it was for shareholders to say whether the business was to be continued. The directors had made great personal sacrifices to carry on the mine; they had appealed to the shareholders two or three times to get additional capital, but those appeals had failed, and they had now come to this point, that unless the shareholders responded to the present appeal he feared there was nothing for it but to liquidate the company. He need not say he should very much regret to see such a course pursued, especially as the company's prospects at the present time were very much brighter; but they could not go on without a certain amount of money being subscribed by the shareholders, and it was for shareholders to say whether the money was to be subscribed or not. If the shareholders came forward with the money required the directors would labour on, and, with the assistance he hoped of one or two gentlemen appointed from the body of the meeting, they would endeavour to bring about successful results in future. He admitted, looking to the past, there was no great encouragement to go forward, but still, looking to the facts that were now before them, he thought there was very great encouragement indeed, and it remained for the shareholders to say whether the thing was to be proceeded with or not. He moved the adoption of the report and accounts, which would be seconded by a gentleman who was intimately acquainted with the mine, and would be able to give some interesting information.

Mr. DUNCAN GRAHAM, of Liverpool, seconded the resolution for the adoption of the report. He considered that the report gave a full, and at the same time a perfectly fair and candid, statement both of the present position and future prospects of the company—two points upon which he would make a few remarks. It was very discouraging to come here year after year and announce that at the best they had made a few thousands of pounds to go in reduction of the large debit balance, or, at the most, showing an additional amount to be carried to the debit of the account. When the great rise took place in copper, three years ago, this company benefited by it in no way, and when the price receded to the point which it was at a few months ago the company's position was so much the worse. It might seem strange that the company did not make a profit at the time the price of copper rose as it did. Concurrently with the increase in the price of copper there was a great advance in the price of coal and freight, and this additional cost of coal and freight not only told directly upon the consumption of coal and fuel at the mine, but it obliged the Coquimbo Railway to raise their rates for carriage to a considerable extent. This rise in the price of copper in this country led to a demand for an advance in the price of wages in Chili. Then the purchased ores which the company used went up, and a large price was obtained for the produce, but the company was no better off than before, for the simple reason that the copper had cost more to produce; but when the price of copper declined the company's position became worse, as the reduction in the price of copper preceded the reduction in the price of the materials used in its production. When contracts had to be made for purchased ores they could not buy from hand to mouth. This state of things had influenced the whole of the past half-year; and that there should be no element wanting, as it were, to defeat the directors' calculations, the mine, during the same period, gave a produce considerably less than the average of the last three years, and the yield of pure copper was nearly 10 per cent. lower; it was 4·66 during the six months, as against 5·9 for the average of three years, which in itself was an important item. These causes explained the unfortunate results shown in the report to day, but they did not explain the reasons which weighed with him for thinking they were past the worst, and that better prospects were in store for the company. Coals and freight combined had gone down to as low a rate as they ever had them before. The railway company had not yet made any reduction in its charges, but, as the price of coal and wages had gone down, there was no reason why the railway company should not listen to equitable representations that they should reduce their rates for carriage. They were purchasing ores at a considerable reduction, and concurrently the mine was yielding a considerable richer percentage of ore. With regard to the price of copper, they had also to contend with that; during the half-year copper declined from 80*l.* to 74*l.* and 73*l.* 10*s.*, and the average for the year was only about 77*l.* The value of copper at the present moment was 88*l.* As to the future of the market, he was addressing gentlemen who were quite as well able to judge of the future of the market as he was, and he believed they would all say that there was no probability of the prices going back to 67*l.* or to 70*l.*, at which they ranged for a long time in previous years, when they managed to work with a clearing result to the company. As he had said, coals, freight, and labour were considerably lower than they were some time since, and possibly miners would submit to a still further reduction if they knew that the probable alternative would be the closing of the mine. The only item which would remain higher would be the purchased ore; of course, if copper remained high they would have to pay a proportionately higher price for any ore they might purchase. There was a further advantage, the mine was improving, but as to whether that improvement would last he was not prepared to hazard a prediction. Although it might seem almost a farce to say so with the present results before them, yet, individually, he thought that the prospect of the company at present was better than at any time since he had been connected with the company, for the reasons which he had given. He hoped the shareholders would come to the conclusion that there was sufficient warrant in continuing the operations, and furnishing the requisite funds to provide for the necessities of the company; he also hoped the shareholders would keep before them the fact that it was desirable and politic to reinforce the hands of those gentlemen who, as the London board, had borne the burden and heat of the day up to the present time. The London directors would welcome on the board two gentlemen from amongst the body of the shareholdkrs, and would co-operate with them harmoniously and energesically to bring the company to a successful issue. As to himself, he might say that, as a director, he had been placed in a somewhat false position from living in Liverpool. When he was last elected a director he tried to decline the position, as he felt that he could not give that time and attention to the business of the company which he ought to give. Therefore it was not his intention to continue a member of the board, and he proposed shortly handing in his resignation to his fellow-directors, but he should be most happy to do everything in his power to promote the welfare of the company. He sincerely hoped they would not allow the company to stop just as there was the dawn of brighter days before it. (Cheers.)

The resolution for the adoption of the report and accounts was then put to the meeting, and carried unanimously without any discussion.

Mr. E. JOHNSTON (the Deputy Chairman) said he had great pleasure in proposing the re-election of Mr. John Pender, M.P., one of the retiring directors.—Mr. F. J. JOHNSTON seconded the resolution, which was put to the meeting and carried.—The CHAIRMAN then proposed the re-election of Mr. F. J. Johnston, the other retiring director.—Mr. D. GRAHAM seconded the resolution, which was put to the meeting and carried.

Mr. F. J. JOHNSTON said he had to thank them sincerely for the honour they had done him in re-electing him as a director. Referring to the necessity for raising additional money, he said he had now to move that, with the view to the continuance of the operations of the company, the meeting approves of the board's proposition to raise 75,000*l.* on debentures, to be issued for a period of three years, to bear interest at the rate of 12 per cent. per annum. He referred to the last unsuccessful attempts to raise money, but said that the scheme did not receive much support from the shareholders. That scheme having fallen through, the directors now proposed the present plan, by which they could raise money at a not exorbitant rate of interest; whilst at the same time good security would be offered to the shareholders who took the debentures, and one great advantage of the plan was that if the present improvement in the ore continued the debentures were a burden which could at any time be paid off, when the company's finances allowed of its being done. Therefore it was not a tax on the company forever. On these grounds he recommended the proposition to the favourable consideration of the shareholders. The object of the directors was to do the best they could for the interests of the company.

The CHAIRMAN said he would take the opportunity of seconding the resolution to thank the shareholders for the honour they had done him in again electing him one of the directors. The directors had had a long and arduous task, and so far the result had been disappointing; but many of the shareholders must be well aware of the circumstances which had led to those disappointing results. The prospects were now looking better, and the directors were desirous, if supported by the shareholders, of continuing the working of the mine. As evidence of the earnestness of the directors, they were themselves willing to take 30,000*l.* of the debentures which it was proposed to issue. If the tide turned in the company's favour all these debentures would soon be paid off; but if the shareholders refused to find the money almost every shilling which they had already invested would be lost. He might mention that the interest on the debentures had always been paid up to the present time.

Mr. PARSONS said he had no word to say against the management of the company, which he believed had been carried on in the best manner possible under the circumstances; but, speaking for himself, he must say he failed to see how the company could be carried on to the advantage of the shareholders generally. The price at which the shares were now quoted was a clear indication of the amount of confidence which the shareholders felt in the company. He believed it was seven years since a dividend was paid, and the great reason they had not received a dividend was that the directors had not been able to restore the 50,000*l.* of capital which had been lost (which was now increased to 70,000*l.*), and which must be restored before any dividend could be declared. He suggested whether it would not be possible to wind up the company and write off this loss of 70,000*l.* entirely, and then re-construct the company with a smaller capital, in which case any profit which might be made could at once be divided amongst the shareholders, as there would be no necessity to apply it to restoring the 70,000*l.* of lost capital. He believed that if this were done the shareholders would willingly come forward and subscribe the money required.

Mr. F. J. JOHNSTON said the directors were obliged for any suggestion which the shareholders might make, but he asked whether Mr. Parsons expected that people would come forward and take shares in a new company?—Mr. PARSONS said he believed the shareholders would come forward under these circumstances, and take the shares in the new company.

Mr. JOHNSTON said that they could not force the present shareholders to take shares in a new company.

Sir WILLIAM DRAKE also said he thought that there were other practical difficulties to a reconstruction being carried out, and pointed out that it was absolutely necessary to have the 75,000*l.*, and he could not clearly see how Mr. Parsons proposed to obtain that. At the same time, the suggestion was well worthy consideration, and perhaps Mr. Parsons would formulate his proposition, and give the directors an opportunity of considering it.

Mr. PARSONS said he believed that if the lost capital were written off, so that the shareholders could come in for dividend as soon as there were surplus profits, the shareholders would unanimously come in and subscribe for the debentures.

A SHAREHOLDER thought that it would be desirable for two or three large shareholders to confer with the board, with the view of seeing what was best to be done.

The CHAIRMAN said he should have no objection to reduce the capital, but he pointed out that, as far as the dividend was concerned, it would come to the same thing, for they would simply pay on the reduced capital a larger dividend apparently, because proportionately it would be the same as if paid on the larger capital.

After some discussion, in the course of which a very general desire was shown to support the course recommended by the directors, the resolution for raising the 75,000*l.* on debentures was put to the meeting, and carried unanimously.

With the full consent of the board, a small but influential committee was appointed to confer with the directors, with the view of seeing if the course recommended by Mr. Parsons, or any other course, can be adopted which will be likely to benefit the company.

The auditors—Messrs. Harding, Whinney, and Co.—were then re-appointed.

A vote of thanks to the Chairman and directors closed the proceedings.

THE COAL CONSUMERS' ASSOCIATION.

A general meeting of shareholders was held yesterday (Friday), at the City Terminus Hotel,—Lieut.-Col. T. J. HOLLAND, C.B., in the chair. The report was taken as read.

The CHAIRMAN stated that the directors had closed 24 of the country depôts, which were very expensive, and that they had succeeded in obtaining possession of the Silkstone Main Colliery, and were thus able to supply their members with coals from their own property. The business of the company, he believed, was now being carried on without a loss. The head-office rent and all fixed salaries, which in February last amounted to 807*l.* per annum, had been reduced to 290*l.*, representing a reduction of more than 500*l.* per annum; 243*l.* 18*s.* 11*d.* had been inserted in the balance-sheet as depreciation of plant, premises, rolling stock, &c., as well as a further 300*l.* as a reserve against sundry debtors. After further allusion to the items in the report, the Chairman stated that upwards of 60,000 tons of coal up to the present time had been delivered to members, and the directors hoped that the association, being organised on a more economical scale, would be able to arrange in future for a prompt and regular delivery of coal to all shareholders.

The adoption of the reports was seconded by Mr. A. H. COCKERTON.

Mr. HULBERT complained at some length as to the previous management of the company, and stated that out of the capital of 76,930*l.* there had been an actual loss of 16 43*5l.* He ultimately moved an amendment to the effect that a committee of investigation be appointed, and that the acceptance of the report be adjourned until the report of the committee on the company's affairs was presented. The amendment having been seconded, Mr. Aubrey pointed out various instances in which he considered that the directors were much to blame for allowing Mr. Brice to mislead them, as it appeared that he had done. The speaker then moved another amendment suggesting that the directors' report should not be received, and that a committee of seven independent shareholders be appointed to examine into the company's affairs, giving the committee power to call for any books and papers, and that the meeting be adjourned until the committee had issued a report.

Dr. STALLARD seconded the amendment. A long and stormy discussion took place, during which the announcement that Mr. Brice was present was received with hissing and cries of "Shame;" and the various items of the claims of that gentleman were demanded by the meeting. The amendment of Mr. Aubrey was ultimately carried, amid much confusion, after certain details were decided. The meeting then terminated.

SOUTH WHEAL FRANCES.—The meeting on Monday terminated as it was generally hoped it would by all who understood the real merits of the case. These constant attempts to displace old, experienced, and trustworthy agents throughout the country would soon cease were shareholders generally to act in the same manly and straightforward manner as the South Frances shareholders have done on this occasion. Local shareholders do not so much object to London committees as they do to the arbitrary power exercised by their subordinates acting as secretaries, who, in a majority of instances, exhibit an intense lack of acquaintance with even the commonest rudiments of practical mining, and which becomes all the more apparent when they come down into a mining county.

[For remainder of Meetings see to-day's Supplement.]

MINING NOTABILIA.

[EXTRACTS FROM OUR MINING CORRESPONDENCE.]

PENNERLEY.—It may be some comfort to your correspondent to know that the monthly profit of 200*l.* in Pennerley has just squared the debit and credit account of the mine, and that if all matters proceed favourably we may soon hear of a dividend.

HINGSTON DOWN CONSOLS.—An important discovery has been made during the past week in the 110, west of Bailey's shaft, the lode proving worth 30*l.* per fathom, with every appearance of a still greater improvement. In the 150 there is also an important change for the better. The value of these improvements can scarcely be overrated, the one being in the very bottom of the mine, proving the course of ore in the upper levels to be holding down, and the other evidently entering another great course of ore in the unexplored ground stretching away for a considerable distance in the western portion of the mine.

TAN-YR-ALLT (Cardiganshire).—As may be seen by the report, this mine continues to open up well—thus proving what well-laid out capital on a judicious selection can do. This mine was commenced by a few gentlemen at the commencement of this year, with a trial capital of only 2000*l.*; and it was first necessary to erect a water-wheel to pump the mine. After the water had been forked, the deepest point was found to be only 9 fms. below adit, where the north and south lode had been cut but not worked upon. It was determined in a lucky moment to sink to 12 fms. before driving on the course of the lode, and they only sunk 18 in. when they cut one of the richest courses of ore ever seen in the district at such a depth, it being 10 in. solid, besides ore throughout the lode; and this continued down to the 12 fm. level, in the back of which it may now be seen. It was then determined to go 30 fms. further south and sink a new winze from adit, and there, after 5 fms. sinking, they have also cut a fine course of ore, which there is every reason to suppose is holding back for the 30 fms. to the other winze, from which they have driven 7 fms., leaving 23 fms. to communicate. On the whole, this mine promises to turn out a prize; and we trust it may be the means of drawing attention to the great mineral wealth of this country, now so sadly neglected.

A large business has been done during the week in SOUTH PRINCE PATRICK. About 600 shares have been sold, at 3*l.* each. Shares have been offered by brokers at 2*l.*, but they could not supply them. One broker offered 60 in the *Mining Journal* some weeks ago. They were wired for, but his reply was—"It is a mistake." This is unfair.

WEST ESGAIR LLE.—Western Mine: All works at this mine are going on well, and there is no alteration to report in any part. The late improvement in the 10 fm. level east still continues. Dressing ore is carried on as usual.—Eastern Mine: The lode in this mine has greatly improved in two or three important points, and altogether the mine is opening out splendidly. A level has been started at the 34, where the lode is carrying fine stones of lead already, although the ore-bearing part is not expected to be reached for 10 ft. yet. The 24 east is looking better; the lode in this end is worth a good 30*l.* per fathom for copper and lead. The lode in the 24 west has not been taken down. The 10 east continues to look well; this level has been driven now through a long piece of ore ground, valued throughout and in the present end at 20*l.* per fathom. The stopes in the back of this level are looking well, and worth fully 25*l.* per fathom for copper and lead. Altogether, the mine is being developed in a most encouraging manner. The whole of the machinery in both mines is in good order.

BORING APPARATUS.—Messrs. BRYDON, DAVIDSON, and GREY, of Whitehaven, have patented an invention which relates to the combination of a pump or such an apparatus and arrangement as will allow of the passage of the borings into the interior of the pump with a boring chisel or boring apparatus, so that by the borings passing into the interior of the tube the cutting portion of the boring chisel may be kept free; and consists in the employment of a pump or hollow tube of a suitable diameter and length, to the upper portion of which is fixed a pin; this pin is so arranged that it may be screwed into or attached to the boring rods. Another pin is fixed in the lower portion of the pump or tube, to which is screwed or attached the boring chisel; on the sides of this pin are several holes uniting in one central channel, and communicating with the interior of the pump or tube, at the upper portion of which channel is placed a ball so as to constitute a valve; and immediately above this ball or valve is placed a cross bar to prevent the too great displacement of the ball on the downward movement of the boring apparatus.

ECONOMIC MANUFACTURE OF COKE—THE COPPEE COKE OVEN.

Upon the first introduction of the Coppée system of coking at the works of the Ebbw Vale Iron and Coal Company's works, in Monmouthshire, it was pointed out that the advantages of the process were that the largest possible proportion of the carbon contained in the coal was retained, and the heat of the gases were utilised to the utmost by being applied both to the sides of the ovens and to the production of steam; at the present time there are upwards of 2000 ovens upon the Coppée principle, and it is gratifying to find that these statements have been fully verified, the invention being, in consequence, attracting much attention. The great economy of the Coppée system (the development of which in this country has been undertaken by an influential company—the COPPEE COKE COMPANY, of Gracechurch-street—which has already met with considerable success) is no doubt principally due to the rapid combustion in the surrounding flue of the ovens, of the volatile gases surrounding the coal creating a very high temperature, which is uniformly maintained—the ovens, in fact, never being permitted to cool. The Coppée ovens, as will be seen from the above diagram, are placed together in groups of two and two. The flames from the two ovens of the same group pass through a series of openings, *a*, *a*, made in the arch, and circulate through suitable channels around the oven, then passing beneath the sole of the adjacent oven enter by a vertical flue, *c*, into a common conduit, A, which first goes beneath the boilers, and then leads to the chimney. The gases are burnt in the channels by two sets of jets of warm air, the one set entering the oven at *d*, *d*, and the other entering the vertical flues at *e*, *e*. The admission of air is regulated in the former case by the slide-bars, D, and in the latter case by the slide-bars, F. Galleries under the brickwork are traversed by currents of cool air, which cool and preserve the construction. The air enters at the end of the series, and above the level of the ovens, descends and traverses four brick galleries below the ovens, and on reaching the centre of the structure ascends to flues which lead through the ovens to the chimneys. To diminish the loss of heat the tops of the ovens are covered with a bed of clay about 18 in. thick, on which bricks are laid. The ordinary dimensions of an oven are—Length, 9 m.; width, 0·45 m.; height, 1·20 m., for a coking of 24 hours. For a coking of 48 hours the width is 0·60 m., and the height 1·70 m. The ovens are quickly filled by three charging hoppers.

The ovens are usually charged with coal once every 24 hours, and the coals are crushed before being placed in the oven to a coarse dust. The ovens are filled with coal from the top, by means of three holes, over which three wagons containing the exact quantity of coal to be used are placed before the coke is removed from the oven. At each end of the oven are two doors, the lower being 3 ft. and the upper door 1 ft. in height. Between each two ovens are a number of vertical channels, which lead from the top of the oven and convey the gases to the horizontal flues, one of which runs under each oven. The ovens are arranged, the gases from each two ovens pass down the vertical channels referred to, passing into the horizontal flues, from which they take their course into a large channel running at right angles to the ovens. The hot gases pass from this channel either direct into the chimney or under one or several boilers. The great heat which the gases leaving the ovens attain has made it necessary to have a series of cooling flues placed beneath the flues for carrying the gases. These flues are open at each end of the block of ovens, the air passing in at one end and out at the other.

The essential feature of the Coppée oven is the double admission of air, so as to facilitate combustion, the result being the entire prevention of smoke; but there are other characteristics which are of considerable importance. Amongst these are their small width and an arrangement of channels especially suited for poor coals; the combination of all the hot gases in a large conduit beneath the ovens, and their utilisation for heating boilers; and the galleries for cooling and preserving the brickwork. It will thus be seen that by the Coppée system of constructing coke ovens a large surface of small coal is exposed to a very high temperature. This high temperature is always maintained, varying only very slightly at any time. Consequently there results, firstly, rapidity of operation. One Coppée oven will turn out at least as much as two ordinary beehive ovens. This is easily understood when it is remembered that the coke from the Coppée oven is cooled outside, and the oven re-filled in a few minutes. The coal, falling into a narrow chamber raised to an intense heat by the previous charge, commences burning on all sides at once, and, being very fine, it is in the best condition for giving off its gases rapidly. By the arrangement of the flues and the plan of discharging alternately, the cool gases given off by the oven just filled promptly mingle with those of the neighbouring oven, which by this time is giving off its gases at the highest temperature. The mingling of the gases raises the temperature of the one oven almost immediately to that of the other, thus a very high and uniform temperature is maintained. The thin layer of small coal burns on all sides at once, the volatile gases are rapidly expelled, and the oven is ready to be drawn in one-third the time required by the ordinary ovens.

The advantage of keeping the ovens constantly heated will be readily understood. Usually the oven is cooled after each charge has been coked, the next charge being necessarily thrown into a cooled oven. A vast quantity of heat is absorbed in raising the temperature of the oven sufficiently to coke the coal: the volatile gases escape directly into the atmosphere and do very little towards burning the coal, which in these ovens is chiefly effected by the combustion of a portion of the fixed carbon. The coal commences to burn at the top, it cokes gradually downwards, part being completely burnt away before the rest is ready, hence the loss in yield. In the Coppée ovens a thin layer of ground coal is introduced into an oven already in an incandescent state, the coal is attacked on every side at once, the volatile gases of neighbouring ovens mingle and are consumed in flues all round, keeping up the high temperature. The entire contents of the oven are coked all together before any of the fixed carbon has been burnt. Within 2 per cent. of the theoretical yield can be obtained in the shape of coke. The third result is an improved quality of coke. Only a little reflection will render it apparent that the high and even temperature to which a thin layer of coal reduced to small particles of equal size is submitted by the Coppée system will bake the coke harder and denser than the ordinary ovens will. Presuming that the coal from which it is made is close in hardness and density are the tests of quality in coke which has to be subjected to a blast, and to bear a weight of metal in a furnace.

The Coppée system is likely to be as well received by the workmen as by their employers, for, although there is a slight saving of labour, it would not lessen the number of hands to be employed, whilst the advantages which the master will secure in other directions will entirely obviate the necessity of lowering the wages of the men. For the utilisation of the waste gases for the production of steam the Coppée ovens are particularly adaptable. No extra expense is required to the ovens themselves for flues, &c. There is only the ordinary cost of boiler and chimney, which can be added to any group of ovens at any time. The quantity of steam produced varies with the quality of coal and the system of boiler. From 2 to 4-horse power per oven can be obtained. Experience on the Continent has shown that some qualities of coal, which are not sufficiently bituminous to coke in ordinary ovens, will coke in the Coppée oven. There are seams of coal in England and Scotland of which the small coal will not coke, but which might probably be utilised for the purpose if treated on the Coppée system; and, although upon comparing the first cost of the ordinary and of the Coppée oven, the cost of the latter is nearly 20 per cent. greater, this is much more than compensated for by the fact that the Coppée oven produces in the quantity of coke in a given time. The Coppée has, moreover, the important advantages of occupying but one-fifth the space, and that the Coppée oven can be emptied and re-filled in eight minutes, while the ordinary oven requires over sixty minutes. The coke produced by the new system is firm and dense, the proportion of breeze

refuse is materially reduced, and the general cost of the labour charge per ton of coke made (11d., as compared with 1s. 3d.) scarcely exceeds two-thirds. Owing to the quality of the materials, the very regular action and the non-application of water inside the ovens, the cost of repairs is very small, and it is stated that a block of ovens in Belgium, which has been twelve years at work, has cost less than 7s. per oven per annum for repairs.

An interesting comparison of the Coppée and common beehive ovens was made by Mr. Bainbridge in a paper recently read before the Institute of Mining and Mechanical Engineers. Taking the production of 2 tons of coke per day as the unit of calculation, he found that the first cost was 100*l.* for the Coppée, and nearly 120*l.* for the common oven; that whilst the process was completed in 24 hours in the Coppée, from 48 to 120 hours was required; that the yield was 59 per cent. washed, or 68 per cent. unwashed in the new oven, against 45 per cent., and 54 per cent. respectively in the common oven; that the new oven can be emptied and re-filled in eight minutes, whilst 60 minutes is required when the common oven is used; and that whilst only 9667·10 units of heat can be obtained with the waste gases given off from the common oven, the new oven yields 1,401,584 units. As the gases evolved from the coal when the Coppée oven is used are all entirely consumed, any nuisance to the neighbourhood, either from smoke or otherwise is entirely avoided, and the facilities which the new ovens offer for the consumption of slack—the coal being, as already mentioned, used in the form of powder—will be recognised as an important advantage.

IMPROVED MINE MACHINERY.

With a view to facilitate the more speedy and economic development of mines, by the introduction of machinery to supplement the now somewhat scarce supply of manual labour, Messrs. Williamson and Parsell, of Saundersfoot, Pembrokeshire, are introducing a new patent pump and an improved steam-engine, boiler, and air locomotive for underground haulage. Taking for example a Cornish condensing engine now at work at a well-known colliery, 80-inch cylinder, 10-ft. stroke in the house, and 8-ft. stroke in the pit, single acting, low-pressure, with steam at 12 lbs. pressure (sometimes known to require 20 lbs. per square inch), a comparison is made of what can be done by it working ordinary pumps and working the patent pump. The pump works three lifts, and he estimates 640 gallons per minute raised 105 fms. to the surface as the maximum quantity that can be lifted. Working the patent pump, this engine, with 12 lbs. of steam on the square inch, would raise 2600 gallons per minute from a depth of 105 fms. Hence, it is remarked that this Cornish engine, as at present worked, requires 12 lbs. pressure of steam through all the strokes 10 ft. long, and (say) 5 strokes per minute—equal to 50 ft. length of steam; whereas the same engine combined with the patent pump, working with the same pressure of steam (12 lbs.), cut off at 1 ft. of the stroke, making 25 single strokes per minute—equal to 25 ft. of steam, thus showing in favour of the patent pump about four times the quantity of water raised, and with one-half of the steam used as at present, with a saving or gain of 300 per cent. on the pumping and 600 per cent. on the coal consumed. However, take it one-half—a saving or gain of 150 per cent. on the pumping and 300 per cent. on the fuel is an object not to be overlooked these times. And further, that one great advantage in the patent pump would be in the extreme lightness of the pitwork, as all the pipes required could be made of wrought-iron (say) ¼ or 3-16ths in. in thickness.

With regard to the steam-engine, boiler, and air locomotive, for tramming and underground haulage, it is truly stated that the application of compressed air has for some time taken up the attention of practical and scientific men, and more so lately from the great cost of fuel, labour, and horse-power. Taking an extensive Glamorganshire colliery, for example, it is shown that 150 horses, with a driver and boy to each horse, costs 600*l.* per week, or making the necessary charges and deductions 30,000*l.* per annum; whilst the estimated cost of working by air locomotives underground—say, 50 horse power patent steam-engine, with three air-compressors, three miles of pipes, four stop-cocks, six air-vessels of 2 tons each, nine small air-locomotives, and for fitting apparatus in pits, &c., is 35*l.* The annual expenses or working costs, including 10 per cent. for interest on the 7456*l.* above mentioned, would be 3261*l.*, showing a difference of 26,739*l.* in favour of air locomotives doing the same quantity as 150 horses in hauling from 800 to 1000 tons of coal underground.

To carry out this estimate each air locomotive will be fitted with two patent annular reciprocating engines, for utilising the power of compressed air from a pressure of 120 lbs per square inch down to about 4 lbs. before being exhausted. Also, the locomotives may be fitted with two or more air vessels—say. 4 ft. diameter by 4 ft. high connected at the top and bottom with swivel joints, so that the engine may turn at short angles, two wheels being placed in front of the air vessels and two behind, the bottom of the air vessel reaching within a few inches but clear of the road, and any number of air vessels may be connected to the locomotives. If the levels, or main roads, are 4 ft. 6 in. high and 5 ft. wide the engine will have room enough to work. When the air locomotive starts the pressure of air in the vessels will be 120 lbs. per square inch; so that the average pressure on the piston for 800 strokes is 70 lbs. per square inch, and expanded down to 4 lbs. when exhausted. It is claimed that the engine and boiler, with other improvements, including air condensor, when combined, are particularly applicable, and intended for tramways and traction engines working through streets and other populated districts, as there will be no noise nor danger from steam puffing, or nuisance from smoke, as anthracite coal will be consumed and the waste steam condensed. There is a further advantage in using the pump in collieries and mines, which is that for ever gallon of water pumped about 7 cubic feet of foul air is exhausted. As soon as the inventions are in practical operation ths subject will be more fully referred to.

AN OLD FRIEND UNDER A NEW FACE.

For many years the Grand Trunk Railway of Canada has been a struggling undertaking. It has an inadequate population to support it, and it has had to contend against climatic difficulties of the most formidable character. As if all this were not enough, the gauge of the Grand Trunk, as originally laid down, differed from that of neighbouring American railroads, so that it was difficult for the company to exchange traffic with its neighbours. But, after 12 or 14 years of weary disappointment, the Grand Trunk seems to be at last on the high road to something like prosperity. Its credit has revived to such an extent that we find the second Equipment Mortgage Bonds standing at 5 prem.; population is gradually collecting in some of the more important points along the line; the introduction of steel rails which can resist the Canadian climate bids fair to possibly reduce maintenance charges; and the gauge has been converted throughout the main line, so that traffic can now be exchanged with American systems. Having opened up business relations with Chicago, the Grand Trunk appears now to have some chance of obtaining a fair slice of the transportation of commodities from the interior of the American continent to the Atlantic seaboard. The working expenses of the Grand Trunk are still proportionately heavy, but now that there is a prospect of a reduction in maintenance charges in consequence of the employment of steel rails, there appears to be a reasonable chance of an amelioration being realised in this respect. Anyhow, the great tangible fact established in connection with the working of the Grand Trunk in the six months ending with June 30, this year, was that for the first time in its history the undertaking was enabled to provide out of current earnings for the interest accruing on its first preference bonds.

The Grand Trunk is certainly now in an incomparably better position than that which it occupied (say) five years since. Then its credit was at the lowest ebb, and bankruptcy seemed to stare the concern in the face. But since then the company has altered the gauge of 1300 miles of line; it has laid down about 800 miles of steel rails in the track; it has constructed an expensive bridge over the Niagara river; and it has obtained an increased and thoroughly efficient supply of narrow gauge rolling-stock. In short, the Grand Trunk has prepared, in spite of the natural disadvantages of geographical position and climate, and during a period of somewhat severe Transatlantic depression, to take advantage of the better times which the directors confidently believe are in store for the undertaking and for North America generally. The successful introduction of steel rails on the Grand Trunk is obviously a matter of great moment and importance to the Canadian railway interest generally. Formerly traffic was conducted upon the Grand Trunk during the long winter months with considerable danger, great difficulty, and heavy cost. Iron rails, even of the best quality obtainable in England, were always breaking, and the company re-rolled them only to have them break again. When Mr. Allport, general manager of the Midland Railway (of England), went over the Grand Trunk three or four years since he described it as the most deplorable and wretched piece of permanent way which he had ever witnessed. Now—mainly with the help of steel rails, which resist the Canadian climate so well that they rarely break—Capt. Tyler, an authority of at least equal standing with Mr. Allport in the railway world, speaks of the efficiency of the Grand Trunk equipment and general arrangements. All this, we may depend upon it, will not pass unnoticed by other Canadian railway companies, which have had to struggle with difficulties at least equal to those against which the Grand Trunk has had to contend. The Great Western of Canada has already exhibited as great a partiality for steel rails as that shown by the Grand Trunk, and it is also beginning to experience the benefit of its steel rail efforts in reduced maintenance charges. It is clearly established, in fact, that in order to be even moderately prosperous, Canadian railways must have steel rails, more population near their stations, and increased facilities for an interchange of traffic with American systems. All these advantages have been secured by the now reviving Grand Trunk.

FOREIGN MINES.

Sierra Buttes (Gold).—The result of the working at the Sierra Buttes and Plumas Eureka Mines for October:—Sierra Buttes: Receipts, $36,445; cost of mining and milling, $20,863.—Plumas Eureka: Receipts, $30,970; cost of mining and milling, $13,566.

Rio Tinto.—Oct. 31: The removal of the overburden increasing weekly; total removed to date 154,000 cubic metres.—Tunnel at Mines: New machinery, McKean's patent, as in use in the St. Gothard Tunnel, just at work.—Railway: Excellent progress continues. Number of hands employed by the company, 1119; by the railway contractors about 3500. Steam-ship Gogo now loading homewards wich pyrites and precipitate.

Prstarena United.—T. Roberts, Nov. 3: District Val Toppa: We have driven in the past month No. 5 level south on the eastern branch 4·70 metres, and opened out on a branch taking off in the western side, where we raised about 1 ton of ore quartz, carrying pyrites. A trial gave by the small mill after the rate of 2 dwts. 7 grs. of gold per ton of ore. Although this branch merits a further trial, we have suspended opening out on it for the present, and have resumed driving the end southward on the eastern branch, at 84 frs. per metre. This branch is letting out water freely, and producing at present occasional stones of quartz; we expect a change here shortly. No. 4 end advanced 4·25 metres, set for the present month at 60 frs. per metre. In this end we have a slight change, the the decomposed part of the channel has opened out a little, and is of a lighter color, carrying strings and stones of quarts. With a view to try the ore driven through behind this end, we have started a new rise on the flat lode, 17 metres south of the cross cut east, on a lode 2 feet wide, composed of quartz, carrying iron pyrites, black jack, lead ore, and spots of visible gold. At the establishment the frame for carrying roof over gear leading to the stamps is progressing. In the course of a week we shall finish milling up all the ore or old skimpings on mill floors.

Cape Copper.—Returns for September: Ookiep, 860 tons of 31 per cent.; Spectakel, 57 tons of 31 per cent.—Railway traffic for fortnight ending Sept. 19. 155 tons up and 400 tons down.—Bills of Lading received: 210 tons of ore per Anglian, 200 tons per American, 125 tons (completion of cargo) per Coronella, 400 tons per Hondeklip, and 540 tons per Ocean King.—Arrival at Swansea: The Coronella.—Sales by Public Ticketing: 500 tons of ore on Oct. 20, at an average of 16s. 3d. per unit, realising approximately 11,400*l.*; 700 tons of ore on 3rd inst., at an average of 16s. 10½d. per unit, realising approximately 19,00*l.*.—Put forward for Sale by Public Ticketing: 320 tons of ore on 24th inst.

Menzenberg.—R. K. Roskilley, Nov. 11: Dickin's Engine-Shaft: We are busily engaged in putting in another set of timber, also casing and dividing the shaft, and making the same complete, so as to commence the cross-cut south. This work we shall have finished by Friday next, when we shall at once commence to drive at the 45. We have no other change to notice.

Lanestosa.—Nov. 5: Asuncion: In Judd's shaft the men are still taking out ground for plat at the 80 metre level, where the lode yields ½ ton calamine per fathom; it is expected to finish the plat by middle of month, when sinking for fork, &c., will be resumed, previous to bringing down skiproad and starting 80 metre levels. The lode in the ventilation winze, below the 60 south, is large, but without ore. In the 60 south the lode has been cut through, and found to be 5 ft. wide, with ½ ton lead ore per fathom on the east side; the driving is resumed. In the cross-cut from the 60, south on cross-course east, mineralised rock has been opened out, worth ¼ ton calamine per fathom; this will be a suitable point to make a trial for proving side lodes. The cross-cut, west from 60 south, shows only a division in the limestone. No. 1 winze, below the adit north, is in calcareous rock of lode-like character, without ore, and underlying very flat. In the intermediate level, north from No. 2 winze in adit south, the lode has improved to 2 tons lead and 2 tons calamine per fathom, and is dipping fast. In the same level south there is a very promising lode, 5 ft. wide, worth ½ ton lead and 1 ton calamine per fathom. No. 3 stope, in back of adit south, is worked out to the Cave level. The 20 metre level north is suspended, in order to await arrival of dial to find our position before commencing a winze to communicate with adit; lode in end not very decided. In No 2 stope, in back of the 20, there is a small vein of lead on footwall. In the trial level from this stope, cutting through to west wall of main lode, with the intention of holing to shaft for air-road, &c., the yield is ½ ton lead per fathom. A pitch has been set in back of No. Cave level stope to work out a few small branches, and to prove whether they lead to anything above. The sources of our sampling are precarious just now, the developing points being rather behind, and it is, therefore, difficult to give an estimate of the raisings for present month. I hope to raise about 60 tons—one-half lead and the rest calamine, &c.

Linares.—Nov. 4: Pozo Ancho Mine: The 100, driving east of Warne's shaft, is in a large open lode, of a promising appearance, producing 2 tons of lead ore per fathom. The same level west is in a very strong lode, consisting chiefly of quartz, carbonate of lime, and 2 tons of ore per fathom, and letting out a river of water. In the 85, west of Crosby's, the ground is hard, and the lode quite unproductive. In the same level, on the south lode, there is a good stone of ore in the bottom of the end, worth 1 ton per fathom. There is no improvement in the 75 west on the same lode. In the 75, west of San Francisco shaft, the lode is much smaller than it was, and, the ventilation being very imperfect, the driving will be suspended until Peill's shaft is holed. In the same level east the lode is very small, yielding ½ ton per fathom. The lode in the 65, east of San Francisco, is small and unproductive. The same level west is opening out a good length of fairly productive ore ground, at present yielding 1 ton per fathom. In the 55, west of the same shaft, the lode in the old level being poor, the driving is suspended, and the men put to open the south part, which is producing ½ ton per fathom. In the same level east the lode continues small, and is of no value. No. 189 winze will be holed to the 55 in the present month, the lode yields 1 ton per fathom. In No. 191 winze below the 75 the water is very strong, rendering sinking difficult and expensive; the lode produces 1 ton per fathom. No. 194 winze below the 85 is west of Warne's shaft, and over the 100, consequently we expect an improvement shortly: the present value is ¾ ton per fathom. The weekly weighings of ore were kept up very regularly in the past month, and the stopes continue to yield the usual quantity of mineral. The operations at surface are going on satisfactorily, and the machinery is in good working condition. We estimate the returns of ore for November at 150 tons.

Quinientos Mine: The 80, west of Taylor's engine-shaft, is in a regular and open lode, yielding 1 ton of ore per fathom, and is very easy for driving. The 65, west of this shaft, will be got under Cox's shaft in the present month. In the 45, west of Cox's shaft, the lode being small, disarranged, and unproductive, the driving is suspended, and the men put to sink a winze below the level. In the 80, east of Taylor's, the lode is open and easy for driving, and contains good stones of ore. The 65 fathom level, east of this shaft, is in a large lode, and with good stones of ore. The ground in the 65, east of Addis's shaft, is hard, and the lode very small. In the 55, west of San Carlos shaft, the lode is quite unproductive. There is no improvement in the 65, west of this shaft. The 65, east of the same shaft, is not opening out any ore ground of value. In the 55, east of Judd's shaft, the lode yields ½ ton per fathom. In the 45, east of the same shaft, the lode is small and of no value. San Carlos engine-shaft, sinking below the 65, is in very hard ground, consequently very small progress is being made. Addis's shaft is now down to the 65. In Pablo's winze, below the 55, the lode has fallen off. The lode in Gil's winze, below the 32, is compact and firm, yielding 2 tons per fathom. In Diego's winze, below the 55, the men are making good progress, and the lode produces 1 ton per fathom. We estimate the raisings for November at 150 tons.

Fortuna.—Nov. 3: Canada Incosa: In the 110, west of Henty's shaft, we have intersected the lode west of cross cut; at present it is large, composed of spar and lead ore, worth ½ ton per fathom. There is no alteration since last report in the 80 cross cut, south of Henty's. The lode in the 50 west of San Pedro's, does not improve in value. In the 60, west of this shaft, the lode is very small, and ground disordered. The 60, east of the same shaft, is in a lode worth ¼ ton per fathom; we have suspended it, and put the men to drive north to San Frederico's shaft. The lode in the 50, east of San Frederico's, is strong, composed of spar and lead ore, worth 1 ton per fathom. The 40, east of the same shaft, yields also 1 ton per fathom. The lode in the 80, west of Kennedy's, is very much disordered; we anticipate an improvement here before long. The 90, west of Londre's shaft, is in a large, well-defined lode, opening out good stoping ground, worth 2 tons per fathom. The lode in the same level east yields ½ ton per fathom. In the 80, east of Segura's shaft, the lode is large, and produces 1½ ton per fathom. In Judd's shaft, below the 100, the ground is very hard for sinking. In San Frederico's shaft, below the 50, good progress is being made.

Los Salidos: In the 110, west of San Carlos shaft, the lode has fallen off in value, and the ground hard; present value ½ ton per fathom. The lode in the 90, west of this shaft, is split into two branches, containing a little lead, but not enough to value. In the 120, east of Morris's engine-shaft, the lode is of a promising appearance, containing quartz and a little lead ore. The lode in the 110, east of Cox's, is worth 2½ tons per fathom. In the 100, east of San Miguel's shaft, the lode is compact, and worth 1 ton per fathom. The lode in the 45, west of Palgrave's engine-shaft, has improved a little, and is now worth ½ ton per fathom. In the 45, east of this shaft, the lode is looking a little better than it has for some time past; value ½ ton per fathom. The lode in the 35, west of Swaffield's shaft, has fallen off in value, caused by a cross-joint traversing the same. In the 25, west of this shaft, the lode is small, and contains a little lead ore. Good progress is being made in Buenos Amigos engine-shaft sinking below the 110. In Palgrave's engine-shaft below the 45, the lode yields 2 tons per fathom, but the ground is more troublesome for sinking. Swaffield's shaft, below the 35, continues to look well, and is worth 2½ tons per fathom. In Londre's winze below the 100, east of Cox's, the lode produces 2 tons per fathom, and has a promising appearance. Orive's winze below the 35, west of Palgrave's, is in a strong fine looking lode, yielding 4 tons per fathom. The lode in Mernio's winze below the 100, west of San Carlos, has improved, and is worth ½ ton per fathom. In Ricardo's winze below the 35, east of Palgrave's, the lode is very small, and ground hard for sinking.

Alamillos.—Nov. 4: The 30, driving west of San Francisco's shaft, is in a lode containing stones of ore. The 50, west of this shaft, is in a large and strong lode, producing ½ ton of lead ore per fathom. The ground in the 50, north of La Magdalena's shaft, is very hard. The lode in the 85, east of Taylor's engine-shaft, is very much improved, now worth 1½ ton per fathom. The lode in the 85, west from Julian's winze, is worth 1½ per fathom; this is to meet the last-named end. The 85, west of Taylor's engine-shaft, is in a well-defined and regular lode, but does not contain ore enough to value. In the 50, east of San Victor's shaft, a cross-cut is being driven north to prove the lode. The lode in the 50, east of San Carlos shaft, is small, with very good stones of ore, worth ½ ton per fathom, and likely to improve. The 40, west from Joaquin's winze, is worth 1½ ton per fathom; this will be driven to San Carlos shaft. In the 50, east of Judd's shaft, the men have made good measurement in the past month, in a lode worth, on an average, 1 ton per fathom; the end is poor at present. In the 60, east of this shaft, the lode continues very small, and is without lead. There is no improvement in the 40, east of air-shaft. The 50, east of Crosby's shaft, being in contact with the main slide, is suspended temporarily, while the sinking of Jorge's winze over it, in a good shoot of ore, will prove the effect of the throw in the level. The 30 fm. level, east of Swaffield's shaft, is suspended while the men sink a winze through to the 50. The same level west is opening paying ground worth ¾ ton per fathom. San Adriano's shaft, below the 75, is off the lode and in hard granite. In San Victor's engine-shaft, below the 50, there are two small branches, each carrying a little ore, but not enough to value. Judd's shaft, below the 60, is in hard ground, and the progress is very slow. In Morris's shaft, below the 40, the lode continues very compact and regular, producing 1 ton per fathom. Julian's winze is completed to the 85, and the men put to drive west to meet the end from Taylor's; the lode yields 1½ ton per fathom. Joaquin's winze is down to the 40, and the men put to drive west in a lode worth 1½ ton per fathom. In Blas winze the lode is very wet and hard for sinking through. In Ricardo's winze, below the 40, there is an increase of water, which renders sinking very difficult; the lode yields ½ ton per fathom. The lode in Daniel's winze below the 50 is compact and firm, producing 1 ton per fm. Jorges winze below the 40 is going down in a fine lode, worth 1½ ton per fathom. The usual quantity of ore was returned in the past month, and the stopes have not undergone any change worthy of notice. The ordinary surface works are going on very regularly, and the machinery is in good condition. We estimate the raisings for November at 225 tons.

Newfoundland.—J. Nancarrow, Oct. 29: In sending you my fortnightly report, I beg to say, in consequence of the water-course through the mine requiring extensive repairs ere the winter sets in, and being busy the last few days discharging coal from the vessel, and preparing to put in the lead, our operations underground have been confined to sinking Cooper's shaft, McCoy winze, and the new stope in the 20, east of McConochie, but in a few days all the other points will again be resumed. The lode in Cooper's shaft is 4 feet wide, and of a very promising character, still producing fully 1½ ton of lead per fathom. The lode in the winze sinking below the 10, east of McCoy, is 4 feet wide, and has a splended appearance, which produces fully 4 tons of lead per fathom. The new stope in the 20, east of McConochie, will produce 1 ton of lead per fathom; here I expect an improvement after a stull is put in and the stope extended west. I send you by the lead vessel samples labelled from the different productive points underground, also samples of blende dressed and undressed, to see if you can find a market for us that will pay, and also a sample of No. 2 quality ore, which will have to remain here for another cargo; the captain of the Ida (vessel chartered) will only take 160 tons, which is all No. 1 quality. On Tuesday, one of our men, by name of John Barry, met with a fatal accident in discharging coal; he was tiding on one of the trucks, when, through some carelessness or other, he got under the truck, which passed over him. I address the box of samples from Swansea per luggage train to office in London, and there are three different branches of lead in McCoy, which you will find labelled Nos. 1, 2, and 3. I hope in my next to have more time, and give a full and detailed report.

[For remainder of Foreign Mines, see to-day's Supplement.]

Smelting.—Mr. F. Wigg, chemical manufacturer, has patented some improvements in treating and preparing granular or finely divided ores for smelting. The invention consists in mixing the said ore or ores with tar, pitch, resin, or any of them, or of peat, and alkali forming the mixture into blocks or other shapes under pressure, and finally heating.

Metallic Cases.—Mr. Bradley, Warwick, engineer (for General Berlan, of New York), has patented some improvements in solid flanged metallic cartridge cases. He says—"In manufacturing solid flanged metallic cartridge cases, I form a fillet or bevelled shoulder forward of the flange, and at the junction of the flange with the shell, and in combination with the said fillet I form a circular groove or recess in the forward face of the flange. One side of the groove or recess is formed by the bevelled face of the said fillet or shoulder, the other side of the groove makes an acute angle with the outer circumference of the flange. At the rear of the flange I form a bevelled shoulder at an angle of not less than 45° from the axis of the shell, the outer diameter of which bevelled shoulder is about equal to the outer diameter of the case, and the inner diameter of the bevelled shoulder is somewhat less than the interior diameter of the case. I leave a flat surface around the cup chamber in order to give a good bearing surface for the head of the case against the face of the bolt. The rear surface of the face of the flange is about rectangular to the axis of the cartridge case."

Metal Piping.—Mr. W. F. Pitchford, of Belsize-square, Hampstead, has patented some improvements in apparatus for the manufacture of lead tin, and other soft metal piping. In the manufacture of lead and tin piping it has been usual to employ a bridge so constructed as to afford the required support to the core or mandril, while permitting the metal to pass under or over it to the die. According to the invention he so constructs the said bridge, and arranges the same in combination with the die, and he so forms the die itself as to accomplish the operation of forcing the metal through the die with very little resistance beyond that offered by the adhesiveness of the metal itself.

Electro-Deposition of Nickel.—Messrs. Baker and Unwin, of Sheffield, have patented an invention which consists in the preparation and use of an improved solution of nickel for the purposes of the electro-deposition of that metal upon iron, copper, and other metallic and conducting surfaces. The improved solution is composed of nickel, oxide, and an alkali, such as soda, potash, or ammonia, or a mixture of two or all of these alkalies, and the whole dissolved in tartaric acid; and they use the resulting solution as a bath for the electro-deposition of metallic nickel, which will produce a reguline adhesive deposit. The following are the proportions which are found convenient:—1 0 lbs. sulphate of nickel; 53 lbs. tartaric acid; 14 lbs. caustic soda; or they take 100 lbs. of nickel; 67 lbs. cream of tartar.

Lead and Litharge.—Mr. W. Baker, of Sheffield, has patented an invention for improvements in the manufacture of white-lead, and red-lead and litharge consisting in the employment of lead alloyed with a certain amount of zinc; such lead to be used for the making of red-lead, litharge, or cast, for corrosion in the usual manner for its exposure to the action of carbonic acid, aqueous vapour, and acetic acid, according to the usual methods of making white lead.

Artificial Leather.—By the invention of Mr. C. Muratori, of Burton-crescent, any cotton, linen, or cloth fabric is immersed for four days in a bath of alum and muriate of soda dissolved in water. It is then dried and immersed for a few minutes in a second bath composed of waste glove leather dissolved in water. The fabric is then treated in the same manner as ordinary leather after tanning.

Coal Tar Products.—Messers. Lowe and Gill, of Manchester, manufacturing chemists, have patented some improvements in the manufacture and separation of certain mixed coal tar products. The object of this invention is to effect and facilitate the separation of carbolic acid from the cresylic and other liquid tar acids. The nature of this invention is (1) to submit the partially or wholly hydrated mixtures of tar acids above mentioned to the sufficiently prolonged action of temperatures varying between 15° F. and 56° F.; (2) to separate by suitable means the more or less hydrated carbolic acid crystals thus formed from the mother liquors containing the liquid tar acids and a residue of carbolic acid dissolved in them; (3) to effect complete purification of the more or less hydrated carbolic acid crystals thus obtained by re-crystallisation either by partial fusion or solution in water with subsequent refrigeration; and (4) to prepare carbolic acid of high or complete degrees of purity by dehydrating the partially or wholly purified more or less hydrated carbolic acid crystals above mentioned,

Peat.—Messrs. W. Radeke, of Gracechurch-street, and S. R. Smyth, of Gresham-street, have patented some improvements in the manufacture of peat into fuel and charcoal, and in apparatus and appliances to be employed for such purposes, being partly also applicable to the carbonising of wood.—1. Peat is pulped by a powerful cone mill suitable for any motive-power.—2. In cast-iron vacuum tanks the pulped peat is freed of a large amount of its moisture by the action of a pump.—3. The peat is subsequently dried into a solid fuel in a short time by the renewed action of a pump, after having been deposited in an adjoining vacuum tank of similar construction.—4. Peat or wood is charred in retort stacks and condensed therein by the pressure of the gases evolved. Superior charcoal is thus produced and in large shapes.—5. The products evolved during charring are condensed, and valuable products are recovered.

Bricks and Tiles.—Mr. J. Atkinson, of Great Lever, near Bolton, has patented an invention the object of which is to render the surface of bricks and tiles impervious to atmospheric influences. "In performing my invention I prepare a solution of common soil and oxide of lead or other metal, combined with colouring matter if necessary; the solution so prepared is applied to the surface of the brick or tile when dried, but before being burnt."

From the Cape of Good Hope we learn that Mr. C. Sonnenberg has written down from Transvaal to the firm of Sonnenberg and Hartog, to whom he has consigned four bags of very fine gold quartz from the reefs of the company; that the Australians have discovered a new rush already, and that they are turning out lots of gold. Mr. Solomon and Mr. Sonnenberg have purchased 120 lbs. of gold between them, and 1000 lbs. weight has been sent off to Natal. The Diamond News is informed that the quartz reefs of the Pilgrim's Rush Company are turning out splendidly, and altogether the prospects of the gold fields are looking up.

At the New Sombrero Phosphate Company meeting, on Tuesday, the directors' report was adopted; it showed that the loss on the half-year ending June 30 amounted to 240*l.*, being at the rate of 481*l.* per annum, against 851*l.*, the loss for the previous six months, or at the rate of 1702*l.* per annum.

The Equitable Assurance Office has just paid a claim under a policy which must be one of the oldest in the world. The policy was taken out in December, 1795, for 1000*l.*; on a life then aged 13, at an annual premium of 18*l.* 16s., it has now become a claim, after existing for 79 years, and the sum paid is 7905*l.*, being nearly eight times the sum originally assured.

Notices to Correspondents.

** Much inconvenience having arisen in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be *filed* on receipt; it then forms an accumulating useful work of reference.

DYNAMITE.—Can any correspondent inform me the price per pound, or per hundredweight, of dynamite and of lithofracteur respectively, and by what means they could be procured at a mine in Cornwall? Supposing it brought to the nearest shipping port, how could the necessary authority be obtained for carrying it over 8 miles of turnpike road? How many pounds of gunpowder is 1 lb. of dynamite equal to? Can an end be entered as soon after a dynamite as after a gunpowder blast?—J. F.

STEAM ON TRAMWAYS—"K. D. V." (Leeds).—In the present state of the law the use of steam on tramways in the London streets is practically prohibited. Horses do not appear frightened in the slightest degree by the steam road-roller, though an engine could certainly be made more nearly noiseless. There have been several proposals for combining the engine with the tramcar; indeed, we do not recollect one for using an independent engine, which would be awkward and inconvenient. The best arrangement is a small vertical boiler at the top and centre of the car, with the steam-pipe carried down the side of the car to a pair of horizontal cylinders beneath the car, working a pair of central driving-wheels of small diameter, the exhaust steam being condensed beneath the car, and repumped as feed water. By this means the bogies are left perfectly free, and the car can turn in its own length if necessary. We do not recollect the name of the inventor, but believe the objection, or one of them, was that he occupied half of the roof space, otherwise available for passengers, with his machinery. There is the important objection to steam that two men are required, whilst one man drives a pair of horses. The conductor and money-taker could not be made either engine-driver or stoker, and to entrust one man with driving and stoking in a public road would be exceedingly dangerous.

ROLLING RAILWAY CARS, AND BUTTER.—How would it do to apply Walker and Ragon's ingenious rolling cars to the making of butter? That is to say, start them filled properly with cream from some cow-feeding place, and roll them into London by rail straight away. The butter thus churned would have the merit of being genuine at all events, and the butter-milk could be given away easily enough. Pray print this to prevent the idea being patented. Not long ago two gentlemen of Limerick patented "a new or improved mode of cleaning or purifying and sweetening butter 'scrapings,' and rancid or decayed butter." A Canadian butter monger has patented a process for making artificial butter out of any kind of animal fat and fixed oils. The plan I propose would be an improvement on these.—ROLLING STOCK.

ARTIFICIAL LEGS—"P. S." (Bangor).—The best artificial leg maker we know is Mr. Heather Bigg, A.I.E.C., 56, Wimpole-street, Cavendish-square. He has devoted a lifetime to the construction of artificial limbs, and we have seen some marvellous pieces of mechanism of his make. Mr. Grossmith, 175, Fleet street; Mr. Stump, 53, Bolsover street; Mr. Maddox, 19, University-street; and Messrs. Arnold and Sons, 56, West Smithfield, are also first rate anatomical machinists, and would probably be much cheaper than Mr. Bigg. Grossmith does chiefly in the better sorts of eyes, legs, and hands; Stump in noses; and Maddox and Arnold in general work.

MINERAL STATISTICS—"H. J." (Bodmin).—We believe the official statistics for 1873 will be issued in the course of a few weeks. No reports from the Inspectors os Metalliferous Mines have not yet been issued; as soon as they appear they will be noticed in the Journal.

Received,—"R. R."—"A Member"—"W. J. J."—The continuation of "Coal Mining in Italy," next week—"E. C."—"One who Knows"—"Shareholder" (Lovell)—"One Interested" (West Chiverton)—"Y."—"F. C. K."—"Miner"—"Hopeful" (Truro)—"D. E. M." (Georgetown, Col.): Very acceptable—"Shareholder" (Llanarmon) had better apply at the office for information—"Miner" (Breage)—"P. M." (Leeds)—"J. B." (San Francisco).

THE SUPPLEMENTARY SHEET.—We have received occasional complaints, and of late a good many, that the Journal is delivered by country booksellers without the Supplement. Subscribers would oblige us by demanding that the paper should be handed to them complete, as every Journal is accompanied by the Supplement when it leaves our office, and the fault of omission must rest with the country bookseller or their London agent.

THE MINING JOURNAL,

Railway and Commercial Gazette.

LONDON, NOVEMBER 14, 1874.

FOREIGN COMPETITION IN IRON AND STEEL.

The most is invariably heard of this at a time when trade is slack. Such a time we are now experiencing, and in trying to account for it manufacturers are disposed to attach too much importance to the extent of the competition which we encounter from makers outside this country. Whilst we are unprepared to believe that the present slackness is greatly due to this cause we are, nevertheless, convinced that the progress which producers of iron and steel beyond our own shores are making should be carefully watched, so that the lessons which it is calculated to teach may be learnt before it is too late. Such views as these appear to influence Mr. RICHARD JOHNSON, president of the Manchester Chamber of Commerce, who, at a recent meeting of that body, brought the subject of foreign competition very prominently under the notice of the members. Mr. JOHNSON, in discussing the iron trade, pointed out that in the year 1869 we exported 2,608,618 tons, and in 1872 we exported 3,388,622 tons. This large increase, however, consists entirely of pig-iron. There is no increase whatever—on the contrary, there is a small decline—in our exports of manufactured iron. At the same time, there are large imports of manufactured iron from Germany, Belgium, and Sweden into England. Great quantities of pig-iron are annually sent from the Cleveland iron district to the Westphalian forges, there to be manufactured and returned to this country as finished iron. The following returns inform us of the progress of the manufacture of steel in France:—

In the year 1863 the total production was	.....	1,856 tons.
,, 1868 ,,	.....	42,601 ,,
,, 1873 ,,	.....	167,677 ,,

Let us see what advance Prussia has made in the manufacture of steel:

The total production in the year 1862 was	.....	40,160 tons.
,, ,, 1867 ,,	.....	122,148 ,,
,, ,, 1872 ,,	.....	287,905 ,,

The total production of pig-iron in Luxembourg was:—

In 1865	.....	55,000 tons.
,, 1868	.....	115,000 ,,
,, 1870	.....	150,000 ,,
,, 1872	.....	300,000 ,,

Here is, undoubtedly, very great progress. Mr. JOHNSON says that it is unparalleled in any industry; and, to still more emphasise the subject, he informed the Chamber that during the past month his own firm had contracted with a Belgian house for the delivery in Manchester of wrought-iron girders at a price lower by 3*l.* per ton than they could be purchased from English manufacturers. The cause of what Mr. JOHNSON terms our "defects" is not, he believes, far to seek. Great Britain, he declares, is inferior to her neighbours in education both of masters and of men, and in organisation of work. On all hands he hears of the more perfect organisation of foreign works, especially among the French, which enables them to produce a much larger quantity of finished articles than the English manufacturer is able to produce from the same machinery in the same time. This greater quantity, amounting in some branches of the iron trade to fully 50 per cent., which our foreign neighbours are able to produce, is more than a counterbalance to the greater price which they have to pay in comparison with ourselves for coal. It enables them also to meet the greater cost of transit from the works to the ship, and thus successfully to compete with their English rivals in foreign markets, having first driven them out of France.

No doubt the Creuzot Works are now and again successful in securing some orders that might, under different management at that place, reach this country. For instance, the most recent information as we last week showed, is that a specification for some 30,000 tons of steel rails for Russia has been obtained by the proprietors of that concern. It must not, however, be forgotten that in respect of finished iron there has been a considerable diminution in the make during the first six months of this year throughout France collectively. In the first six months of 1873, 464,410 tons of manufactured iron was produced in France; but in the first half of this year the quantity fell to 415,856 tons, showing a decrease of 48,554 tons. There can be no doubt that in every part of the world the demand for iron has in the past twelve months greatly fallen off; and that at such a time, and when the recent enormous demand and excessive prices had encouraged immense outlays in increasing productive capability wherever possible, the least competition must make itself felt. The largely augmented productive capability alike of Germany and of France will soon be more than sufficient to supply much of their own requirements, even when trade is moderately good.

Meanwhile, no ironmaster is surprised that just now we should have heard some little about foreign competition. Much of the improvement shown by the figures which are being quoted against this country is due to the rapid advance in the use of steel for railway purposes instead of iron. England saw what was coming on, and the great Barrow-in-Furness district quickly sprang into being. Germany is making an enormous effort, that she may be equally prepared to comply with the requirements of her own railway engineers, and in a time of slackness to compete also with us in foreign markets. How far this is traceable to the exceptional prices which the late large demand enabled steel makers to require need not be discussed. The facts admit of no doubt that in the producing of steel rails, in particular, Germany and France are at the present moment capable of elbowing this country somewhat uncomfortably. By-and-bye, however, things will have found their level. Certain of the iron rail mills that seem likely to be put off, both in Cleveland and in Wales, must be adapted to the manufacture of steel rails. The demand having revived, and the methods of production become less expensive, the British steel maker will give his competitor sufficient to do to hold his own at home. That the foreigner should be able to do this is not cheering to makers at home, who have largely increased their means of production; but, as has been correctly pointed out, the Germans having discovered that they have an abundance of coal in Westphalia at one end and in Silesia in the other end of their empire, the rapid development of the production of Prussian steel should be accounted for. The more so, we repeat, as the Germans had the further encouragement of prices which, if English makers could get, they should not be expected to forego; but which must, nevertheless, infallibly provoke the Nemesis of larger production elsewhere. The position in which the English iron and steel master now finds himself is not one to call for lamentation, or for self-reproach. It is suggestive, and should "prick the sides of his intent" in matters alike economic and managerial. That it will have this effect we have no doubt, though we are far from admitting that the 50 per cent. increased output quoted by Mr. JOHNSON is other than very exceptional. But that it should have occurred in any instance whatever reveals that the President of the Manchester Chamber is right in holding that workmen have much to do if their masters are to bring to the iron and steel mills of this country the orders which both regard as necessary for their mutual prosperity.

MINING, AND MINING DIVIDENDS.

During the height of the coal fever, in the early part of last year, when a mania had set in for the purchase of colliery property, and thousands of persons were desirous of investing in it without much consideration, we pointed out the results that were likely to ensue from the recklessnees then displayed. Collieries were purchased at truly fabulous prices, and many large as well as small concerns were sold at four or five times their actual value, so that large fortunes were made by many persons who in the first instance had little or nothing to lose. But no notice was taken of the warning we gave, for persons appear to have come to the conclusion that the price of coal would never again come down to anything like what it was in the latter part of 1871, and that the charge in London from 38s. to 42s. per ton delivered would be stationary for a very long time. This we pointed out was not likely to be the case, and that the large profits then realised would be the means of creating a competition that could not fail to bring prices down. During the present year our views have been more than realised; and, although strikes in different places have aided in keeping up the cost of coal tolerably well, everyone at all acquainted with the trade knows that prices must come down considerably. That this must of necessity be the case we need only point to the fact that in every mining district in the kingdom new collieries are now being opened out, although at the present time our productive power is far in excess of our requirements. In Yorkshire alone, we were recently informed by Mr. FRANK WARDELL, one of Her Majesty's Inspectors of Mines, that last year he had received notice of upwards of 100 collieries about to be opened out, many of them being intended to turn out 1000 tons of coal daily. Such being the case, it is almost impossible for the most infatuated not to see that the time is fast approaching when the price of coal must come down to something like it was in the early part of 1872. The question will then be as to where dividends are to come from. Quite lately we have had meetings of companies where great dissatisfaction was expressed at the small amount of profit available for dividends, and for which various reasons were assigned—all, in fact, but the real ones. Instead of beating about the bush, the truth might as well be told in a few words, that too much money was paid to the vendors in the first instance—so much so that the present profits would not admit of anything like a 10 or 15 per cent. dividend, although last year, when coal was some 6s. or 8s. per ton higher than it now is, even more could have been realised. Now, however, when coal is much dearer than it is likely to be, many collieries are unable to pay a fair percentage on the money invested in such risky property. In one instance we hear of the yearly dividend being only 5 per cent., where more than 20 per cent. was held out as the allurement to investors. In another case the Chairman of a company in South Yorkshire informed us recently that he did not intend to call a meeting at all for the half year, seeing that there were no profits to pay any dividend whatever. This, in a great measure, he admitted was the result of purchasing a colliery at considerably more than its actual worth. But these are by no means isolated cases, for our own knowledge alone extends to a great many more. Indeed, instances might be given where collieries that a couple of years ago were in a state of insolvency have been sold for large sums, so that the owners have been able to retire with handsome competencies. A small place we recollect where the whole plant and everything else was valued at less than 3000*l.*, was floated for 30,000*l.* Of course, no dividend as yet has been paid from profits. Vendors, however, have done remarkably well, for we recollect that a colliery which was purchased for rather less than 40,000*l.* was sold exactly 12 months after for over 200,000*l.* So long as coal continued at the prices of last year the profits were such that a fair dividend might even be paid on such a large sum of money, but with a reduction in the price equal to from 25 to 35 per cent., then difficulties commenced.

One of the great difficulties to persons desirous of investing in mining property is their being unable to ascertain for themselves anything like the actual value of the property offered for sale, so that they are obliged to be guided by the reports of experts, that are not always reliable. Still a datum line might be fixed, by which the uninitiated in the mystery of the coal trade and the value of coal mines might be enlightened. The way one would be struck is whilst considering the relative value of the two collieries in Yorkshire—the Oaks, which with a production of from 1200 to 1400 tons a-day, was sold for 240,000*l.*, and another, which with a daily output of 700 tons, was disposed of for something like 300,000*l.* If we take the production of the Oaks, with its two drawing-shafts, at the daily average of 1200 tons, that would make the purchase-money rather less than 13s. per ton for the entire output of one year of 52 weeks. The problem can be easily worked out, but it may be said that coal varies in quality and value. Admittedly it does, but at the Oaks the seam is nearly 9 ft. thick, and combines both steam and house coal of a superior description, whilst the area of the field is a very large one. But in arriving at the probable value of a colliery the thickness of the seam must not be overlooked, for it costs a great deal more to work a thin than a thick bed of coal. However, although our mode of realising the value of a colliery, as in the case of the Oaks, may be said to be a novel one—as it truly is—yet it will be admitted to be a simple mode by which investors may be able to arrive at a safe conclusion as to the value of mining property which may be offered to them. If acted upon it may be the means of benefiting both sellers and buyers, and avoiding misunderstandings and charges of deception, of which we have heard so much of late. It may also tend to the true cause for any decline in dividends being ascertained without difficulty, instead of assigning reasons entirely foreign to the facts. Only recently the Monkwood Colliery, in Derbyshire, the property of a co-operative association of working men, not turning out so good as was expected the Chairman asserted it was the miners' fault. By them it was retorted that there were other causes for the unfortunate results. Gold can be purchased at too high a price, and so can coal. Still colliery property is a safe and good investment when bought at a fair price, and our object in noticing the question of dividends and the price of coal mines has not been to find fault, but to show how great has been the change in the trade, and how a fair estimate of the value of mining property may be ascertained.

RAILWAY PROGRESS IN THE AUSTRALIAS.

The most recent advices from the Australian group of colonies—a group which appears to be growing in population, wealth, and importance with remarkable rapidity—indicates more strongly than ever the resolute determination of the Australians to have efficient railway communication, and that with as little delay as possible. Thus, from Queensland we learn that considerable progress has been made with the construction of the Ipswich and Brisbane line, the rails being now laid for some distance. It was expected, indeed, in September that the line would be partially opened for traffic before many weeks had elapsed. As regards South Australia, a resolution has been carried in the Legislative Council of that colony calling upon the Ministry to bring in a bill this session for the construction of a line to the Murray. The Colonial Government has been pressing on the surveys of several alternative lines, and a promise has been given that these surveys shall be promptly completed. When the surveyors have indicated the results of their labours the Colonial Government will probably introduce a bill providing for the construction of an iron road, over that which may be deemed the best route. If we pass on next to the splendid colony of Victoria, we find that the first section of the Ballarat and Ararat line—from Ballarat to Beaufort, a distance of 28½ miles—has been opened for general traffic. The opening of this section increases the length of Colonial Government lines in operation in Victoria to 514 miles. We have referred to lines in progress or in projection in Queensland, in South Australia, and in Victoria; and similar details might be added with regard to extensions undertaken in New South Wales and New Zealand. Tasmania has a main line on hand between the important towns of Hobarton and Launceston; and even Western Australia—hitherto regarded as an almost hopelessly remote convict-tainted settlement—is dreaming of railways, and means to have them.

Our exports of railway iron to the Australias have been proceeding this year at quite a railway pace, having attained a total to Sept. 30 of 61,487 tons, as compared with 17,219 tons in the corresponding period of 1873, and 17,134 tons in the corresponding period of 1872. This result is due to the remarkably good credit which the various Australian Governments—and it is the Colonial Governments which undertake railways at the Antipodes—have been building up of late years. In 1869—a short half decade since—New Zealand Government debentures might be purchased to yield investors 5½ per cent. per annum, but now the credit of New Zealand has become so strong that similar investments would not yield a return of more than 4½ per cent. per annum. A similar comparison applied to other Australian Government stocks affords very analogous results. Victoria, Queensland, New South Wales, and South Australia can all now raise money at somewhere about 4½ per cent. per annum; and even Western Australia has negociated a loan of 100,000*l.*—and negociated it, too, in Melbourne—at the relatively moderate interest of 5 per cent. per annum. Then, the population of the Australian settlements is, at last, beginning to expand in earnest. Almost all the Australian colonies have now emigration agents actively at work for them in Great Britain and in Europe, so that the resources of our Antipodean territories will in all probability be developed to a very remarkable extent during the next 10 or 15 years. Thus the improved credit of the Australian colonies now enables the Australian Governments to raise capital at relatively moderate interest, while the continual growth of Australian population, through the labours of Australian emigration agents in Great Britain and in Europe, will enable the Australian treasuries to readily and easily sustain the burthen of their loans when they have been negociated. All these considerations tell in favour of a sustained prosecution of Australian railways, and, of course, if the work of Australian railway construction continues to go bravely on there is a good chance of our finding the Australians good further customers for our railway iron. We do not anticipate much competition on the part of Australian ironmasters or Australian iron companies for some time to come. Metallurgical industry is only a product of an advanced and ripe civilisation to which the Australian settlements are not likely all at once to attain.

COPPER MINING, AND ITS PROSPECTS.—The present position of the copper trade has been characterised as singular, because the movements in the prices of ore have not during the current year followed so closely as usual the price of metallic copper, but the arguments put forward and the conclusions drawn are alike fallacious, being based upon by far too superficial a review of the subject. In the *Times* City Article of yesterday it is stated that—

"In common with most other things, the tendency of prices in manufactured copper has been downwards this year, and demand has been comparatively quiet. But, while prices are 2 to 3 per cent. lower for the smelted copper, prices for the ores have gone up 5 or 6 per cent. during the year without any very distinct cause. So far as can be known, there has been no lack of supply; indeed, considerably more has been shipped, at least from Chili, this year than last. Stocks in Europe are, apparently, somewhat lower, but, in the absence of any strong demand from smelters, they are not sufficiently so to force up prices so disproportionately. We cannot, in fact, trace what has become of the whole of the ores said to have been delivered from stock, and it is feared that the market is being operated upon in a manner which will produce a sudden fall when the real position becomes known."

The best refutation of this will be afforded by the figures showing the price of tough cake copper, and the produce and price per unit paid for ore at the beginning of each month:—

	Tough cake.	Prod.	Per unit.		Tough cake.	Prod.	Per unit.
January	£91½	6¾	11s. 3½d.	July	£85	7¼	13s. 11½d.
February	90	7¾	11 7½	August	84	7⅛	13 4
March	87	6	10 8	September..	85½	7¼	13 2
April	85	7⅛	11 11	October.....	90	7½	13 8
May	82½	7	12 0	November ..	93	8	15 5½
June	82½	8	13 5½				

Now, in January, 1872, with tough cake copper at 71*l.* per ton, the smelters were paying 12s. 2d. per unit for 7¼ produce ore, which does not differ widely from the October price of 13s. 8d. per unit for 7½ produce, with tough cake at 90*l.* per ton. It should be remembered that to obtain 1 ton of metallic copper 13 tons of 7½ produce ore is required, and that each ton of *ore* requires several tons of coal to convert it into marketable metal. The difference in the price of coal now and in January last would much more than account for the discrepancy in the relative prices of ore and of copper. Coal being now at its normal price, or nearly so, the relative prices of tough cake and copper in the ore is also at about the normal rate.

PRIZE FOR THE PREVENTION OF COLLIERY ACCIDENTS.—Some one in Belgium has the merit of inventing a new Monthyon prize. Fatal accidents happen in coal mines: the Belgians are anxious to prevent them: someone has accordingly announced that the coalowner in whose mines the fewest workmen shall have been killed by explosions between this and 1883 shall receive a reward of 400*l.* It may be hoped that the money gift will be combined with a medal or a bit of ribbon, or something else that appeals to the sentiment of honour and of glory, for without this the colliery proprietor will hardly consider that he has had an adequate return for the costly vigilance of the decennial period. The notion that the hope of gaining 400*l.* in 10 years is likely to supply any motive to precaution not already found in the fear of losing, perhaps, ten times the sum in one year shows that some persons in Belgium are as innocent as we can hope to see any of our fallen race. Things will, however, go on as before in spite of the offered prize—that is to say, coalowners will probably find in their own interests as business men a sufficient monetary inducement to the raising of the maximum of coal at the minimum of cost by explosions. It is to be hoped that they will not turn this benevolent scheme against its authors by quoting it as a proof that philanthropists cannot understand business concerns. As the matter stands something seems to be wanting. The Govern-

ment might issue a decoration for the miners who had survived the decennial term—all those who had lost their lives by explosions to be strictly forbidden to wear it.

COAL IN THE UNITED STATES.—The Penn Gas Coal Company has been engaged during the past year in constructing a railway from Irwin to the mouth of the Sewickley, within a mile of the Youghiogheny river, a distance of seven miles. The company is opening out large coal works at the Marchand farm, and at the Youghiogheny end of the road. A new coal road building by the Lehigh Valley Railroad, leading from Easton, Pennsylvania, to Perth Amboy, New Jersey, is progressing rapidly. A large force of men is at work on coal docks and trestles at Perth Amboy. The coal trestle and storage dock will be 2000 ft. long by 200 ft. wide, and will be 25 ft. above the storage floor. The aggregate coal movement of Pennsylvania to Oct. 10 this year amounted to 14,465,587 tons, against 15,791,291 tons in the corresponding period of 1873, showing a decrease this year of 1,225,704 tons. On the other hand, the bituminous coal movement of Pennsylvania to October 10 this year amounted to 2,605,598 tons, against 2,539,940 tons in the corresponding period of 1873.

GREAT LAXEY MINING COMPANY.—The assertions of writers which reflect upon the fairness and integrity of their late employers, and those connected with them, are seldom worthy of much consideration, yet from the, perhaps too prevalent, feeling that the weaker parties ought to have an opportunity of vindicating themselves, there is always a disposition to allow persons in the position mentioned more latitude than they are justly entitled to. In some instances the liberty given is abused; and we much regret to find that this has been the case in Capt. Polglase's letter of Sept. 22, commenting upon the Great Laxey Mine, and its management. The entire absence of unbiassed feeling observable in every phrase and paragraph of his letter, and the fact of objectionable insinuations being substituted for intelligible statements, are productive, no doubt, of excessive annoyance to those against whom they are directed, and, more especially so, as to reply to them and demonstrate their falsehood would be more gratifying to the writer than useful to the gentlemen attacked; yet with regard to Capt. Polglase's letter complained of, it will be acknowlenged by all to be of much too violent and personal a character to inflict real injury upon anyone, unless, indeed, it be the writer himself. We much regret that such a communication, although reprinted from a contemporary, should have found a place in the columns of the Journal, for, although we can tolerate strong statements made in the heat of excitement, there is a limit which should always be observed, but which, we are sorry to find, Capt. Polglase has very far exceeded in his reflective remarks on Mr. Jos. D. Rogers, the able secretary of the Great Laxey Mining Company, whose services, we are glad to find, are well appreciated by those who are most likely to know their value.

RAPID MINING.—As it is constantly stated that "time is money in mining," it will be interesting to learn what great rapidity can be attained with machine-drills and dynamite. At the St. Gothard Tunnel, where, as stated in the description published a few weeks since in the *Mining Journal*, they are in solid granite, the heading was driven during the month of October 188 metres, or, including all delays and stoppages, more than 6 metres a day. It will be remembered that the advance heading is 8 ft. wide and 8 ft. high; yet in 31 days 104 fms. forward progress has been made, or over 3 fms 2 ft. per day. To attain this average the progress upon some days was really astounding, and appears fully to justify the prediction made that when the new McKean drills are in full operation 10 metres (5½ fms.) per day at each end will be achieved. If adventurers in Cornish mines could but be induced to sink and drive at only half the St. Gothard speed, or even (say) 20 fms. per month in each end, no fear need be entertained with regard to Australian tin or Chilian copper, and Cornish mining would become the most attractive of commercial enterprises.

COAL-CUTTING MACHINERY.—Satisfactory progress is being made with the introduction of Rothery's coal-cutting machine at the Waterloo Main Colliery, near Leeds. He will have one at work there, by power, in the course of a fortnight or three weeks. The principle is exactly similar to that for some time deposited at the *Mining Journal* office for the inspection of those interested, but it is intended to cut a 1½-in. groove, and it is estimated that it will do twice as much work as any other machine consuming an equal quantity of power. The results will be duly reported as soon as possible.

REPORT FROM CORNWALL.

Nov. 12.—So confident were the anticipations entertained in the county that the liberal advance in copper would speedily be followed by better prices for tin, that when Monday passed and standards remained as they were there was a very general feeling of disappointment. This feeling, however, cannot be said to have had any depressing effect. The rise had been looked for, and it did not come, but then it was felt that the fulfilment of the anticipation was only a question of time, and we were too used to waiting not to be able to wait a little longer.

Contrary to expectation, the local mine meetings of the present week have passed off quietly. At South Frances the attempt to transfer the management to London ended in a complete fiasco. Mr. Laws found that he was not strong enough to carry his point, and so very wisely withdrew. There cannot, we think, be a doubt that in this he acted with discretion. Defeat was certain, and to press the motion under such circumstances would only have been to arouse ill-feeling. East Pool meeting was a little noisy, but passed off much better than could have been anticipated. No doubt this was in no small measure due to the fact that there was such a handsome profit shown on the two months' working. It was admitted that substantially the allegations of Mr. Rule were correct, and that the mine was very seriously in debt. But the concern is healthy, and will soon recover the present depression. It was only just to Mr. Rule to pass him a vote of thanks, for he has rendered good service by clearing up the condition of the mine. It is evident that there have been several faults in the management, errors committed doubtless with the best intentions, but errors still. We cannot believe it was at all fair to throw so much blame upon Capt. Garby. Everybody knows that he was not in every respect his own master; so that the responsibility of declaring the last dividend, which it is now clearly seen never ought to have been declared, must certainly be shared by the committee. However, "all's well that ends well," and East Pool has now a fair start again. The good sense of the gentlemen who were engaged in the contest for the pursership at West Seton resulted, too, in that meeting going off very quietly, with the result which we predicted—the election of Mr. T. Pryor. Mr. Pike and Mr. Pryor submitted their "hands" to Mr. P. P. Smith, on the understanding that the one of the two who was found to have the smallest amount of support should retire. In compliance with that arrangement Mr. Pike, having less support than Mr. Pryor, withdrew, and the latter gentleman was elected unanimously. A contest would have been specially awkward between two such excellent men. The only show of opposition was a suggestion by a shareholder that another gentleman should be selected, apparently on the sole ground that he had lost several hundred pounds in the mine, though how that would prove his fitness for a pursership it is hard to see. Another result of the meeting was that Capt. Josiah Thomas definitely accepted the position of manager. West Seton is poor now, though looking up a little bit, but there is a large quantity of unexplored ground, which it is hoped may replace it in its former position. There appears to be a kind of dismissal epidemic onwards, and if matters go on as they now are it will by-and-bye be the regular part of the business of a mine meeting to dismiss the managers. The events at South Condurrow, following so closely upon those at West Chiverton, have caused a good deal of talk; and on the face of it, so far as the proceedings have been made public, they do not appear to afford any sufficient explanation for the course adopted. Clearly, however, if that committee and manager found they could not saddle horses, the best thing in the interests of the mine was that they should part; and this may be so. We question, however, whether as regards the actual working there is anything to be gained by the dismissal of the Messrs. Vivian. They know the mine, and they know how to work it; and it has now been brought up again to a position which indicates good prospects in the future. Quite irrespective of all considerations of Chiverton or Condurrow, it seems to us that outside shareholders need to be warned against the desire for change that appears to have come over so many of them. Except in a case of flagrant dishonesty, or incompetency, there is little to be gained by dismissals of this kind; and of all men in the world outside shareholders—who never, perhaps, saw a mine in their lives—are least able to decide when the best time to make such change is, and are the most liable to be led away by the tale of someone who has his own object to serve. Independent competent advice can always be had; and assuming that a fair proportion of the shares in a concern are held in the county, Londoners, or Scotchmen either, need not fancy that the Cornishmen—who do know something about mining after all—are quite such fools as not to keep a sharp look out after their own interests, which they cannot, of course, separate from that of their brother shareholders elsewhere. The first thing, is to be satisfied that the concern is *bona fide;* the next, not to be led away by every idle or misleading rumour.

The Court of Queen's Bench have decided that the Liskeard Board of Guardians were right when they rated the mines in their Union on the surface buildings, &c. The decision is of very little consequence now, seeing that the Rating Act of the last session has entirely—so far as our tin, copper, and lead mines are concerned—superseded the old law. Had it been given twelve months since, possibly the agreement which had been arrived at after so much deliberation, that the mine should be rated on the basis of dues, might have been reopened and more controversy have arisen. Had no provision been made in the new Act against the effect of such a possible interpretation of the law, the mines might have been exposed to double rating. Now, however, neither of these contingencies can happen. The Rating Act provides that the gross value of a mine shall be the amount of dues or rent payable; and it provides, moreover, that by a mine shall be understood not only the underground workings, but all buildings and land at surface occupied and used for the purposes of the mine. The decision of the Court is thus entirely restrospective, and retrospective only as it affects the assessment actually made before the Rating Act was passed—those of the Liskeard Union which have so long been under appeal. How the decision now given can be reconciled with the decisions given in former cases we confess we are not lawyers enough to decide.

REPORT FROM MONMOUTH AND SOUTH WALES.

Nov. 12.—Instead of improvement increased depression is to be recorded in connection with the Iron Trade. Orders are coming in more slowly than ever, and it is with great difficulty that any work at all is found for the men. There is, in fact, little inducement for makers to seek orders, as the quotations current are quite unremunerative, although rail iron has been sold at 1*l.* lower than at present prices, but the cost of manufacture was then very much less than it is now. The total quantity of iron sent to the foreign markets last month was only 20,683 tons, which was little more than half the usual quantity. Of that quantity Cardiff cleared 10,671 tons; Newport, 7778 tons; and Swansea, 2234 tons. The current month is not likely to show any appreciable improvement.

The masters are undoubtedly determined to carry on the 10 per cent. reduction which has been spoken of, and dull as times are it is to be apprehended that there will be a renewed struggle between capital and labour. The men contend that the masters are throwing all the distress of the trade upon them, and there appears to be a strong feeling to resist the contemplated reduction. If they follow this course there is little doubt that the result will be a general stoppage of the iron-making establiibments, as under the circumstances ironmasters care but little whether they keep their works going or not, The prospects of the Tin-Plate Trade seem to be improving slightly.

The Coal Trade continues brisk, but there is a slight falling off as compared with the last week. The demand on foreign account is still good, but for home purposes the enquiry is quieter. On the whole, the exports last month were larger than any record in the annals in the history of the district before. They were as annexed:--Cardiff, 306,908 tons, as against 235,141 tons in the corresponding months of last year; Newport, 36,832 tons, against 31,155 tons; Swansea, 46,372 tons, against 49,749 tons; Llanelly, 6097 tons, against 7839 tons. The shipments coastwise were as follows:—Cardiff, 77,550 tons, against 88,417 tons in October last year; Newport, 57,762 tons, against 77,653 tons; Swansea, 26,723 tons, against 25,899 tons; Llanelly, 12,948 tons, against 11,298 tons.

The agitation continues amongst the colliers in regard to the new contract rules, and resolutions are still being passed denouncing them as tyrannical, and that if the masters persist in enforcing them they will resist them, but they wish to meet the masters first to see if any understanding can be come to.

During the present enquiry for coal, colliers and colliery managers have good opportunities of testing the capacity of the pits. A few days ago the manager of the Forchaman Colliery, in the Aberdare district, assented to the men seeing what quantity of coal they could put out in one day, and the result was extraordinary. In less than ten hours over one thousand tons were cut and raised by a single shaft.

The Rock vein has been struck at the London and South Wales Coal Company's colliery at Risca, after about 18 months sinking.

REPORT FROM SCOTLAND.

Nov. 11.—On Wednesday last the warrant market opened flat, and business was done at 84s., but before the close on that day the tone became firmer, and as high as 85s. was paid. Since then the market has been steady, the prices fluctuating between 85s. and 86s., closing to-day at the latter price.

The price of warrants is now, relatively, somewhat higher than maker's iron, and in consequence a trifling increase has taken place in the stock in store.

There is little change to note in the following quotations:—

	No. 1.	No. 3.
G.m.b. at Glasgow (deliverable alongside)	90s. 0d.	81s. 0d.
Gartsherrie ditto ditto	105 0	84 6
Coltness ditto ditto	105 0	84 6
Summerlee ditto ditto	98 6	82 0
Carnbroe ditto ditto	94 0	82 0
Monkland ditto ditto	90 0	81 0
Clyde ditto ditto	90 0	81 0
Govan, at Broomielaw ditto	90 0	81 0
Langloan, at Port Dundas ditto	102 6	83 6
Calder ditto ditto	105 0	83 0
Glengarnock, at Ardrossan ditto	96 0	83 6
Eglinton ditto ditto	88 0	79 6
Dalmellington ditto ditto	89 0	80 6
Carron, at Grangemouth, selected, ditto	100 0	—
Shotts, at Leith ditto	102 6	83 6
Kinneil, at Boness ditto	95 0	78 6
Bar iron	£10 0	—
Nail rods	10 0	—

SHIPMENTS.

Week ending Nov. 8, 1873	Tons 10,646
Week ending Nov. 7, 1874	9,719
Decrease	927
Total decrease since Dec. 25, 1873	154,551
Imports of Middlesborough pig-iron into Grangemouth:—	
For the week ending Nov. 7, 1874	Tons 2,170
For the week ending Nov. 8, 1873	2,160
Increase	10
Total increase for 1874	49,695

The price of ironstone, with the advance in warrants, is a little firmer, and there is sufficient offering for the requirements of the 119 furnaces now in blast. The shipments are short by about 1000 tons for the week, and the reserve in Connel's stores have been increased to fully 18,000 tons. The year, it is expected, will close quietly, there being little speculative or consumptive demand to keep prices up or impart life to the market.

In manufactured iron we cannot report any improved change this week, although the shipping returns show a variety of miscellaneous small consignments. The works are only partially employed, and makers are scrambling for the pickings offered. Prices are easy, with limited prospects, on account of the dispute with the shipbuilders and their men for an increase in the hours of labour, and a reduction in the wages now paid.

The prices of household coals are a little higher this week for best descriptions, with a fully better demand, but shipping and steam qualities are easier, with the decrease in the steamship traffic. The shipments for the week look large, being 55,253 tons, against 26,786 tons in the same week last year, but the former sum includes about 20,000 tons from the port of Ayr not included in the latter. In the East Coast ports the coal trade has also improved, and full prices are being paid, but the men are restless, and are shifting from place to place in quest of full time and higher rates of pay. In the other districts miners are aiming at an advance, which the present state of commerce will not justify.

The Philosophical Society of Glasgow have enlarged their basis by adding a new section, which is to embrace physics, mechanics, and engineering.

At a meeting of the Local Natural History Society, on Monday, Mr. James S. Dixon exhibited specimens of alum shale in its native and also its decomposed form, and described the position it occupies in the coal formation, and the manner in which it is converted into the alum of commerce.

THE BLOCHAIRN MALLEABLE IRON COMPANY, GLASGOW.—This unfortunate concern, which has come to so unhappy an end, was established in June, 1873, and was guaranteed to pay its shareholders 10 per cent. for five years. During the first 11 months of its existence the loss amounted to 135,000*l.*, so that, instead of a dividend being declared, in conformity with the promises of its vendors, notice was sent to the shareholders that the company had suspended, and calls were demanded on the shares taken. The original proprietors of these works were Messrs. Hannay. The properties consisting of the Blochairn Ironworks and Collieries have been valued, says the prospectus, "under our own instructions," at 301,000*l.*, and "stocks and working capital at about 200,000*l.*;" so to purchase and work the business it appears from this that 501,000*l.* was required; but, that there should be sufficient to pay the vendors and carry on the business, the directors propose to raise a capital of 600,000*l.*, in 12,000 (50*l.*) shares The flattering statements of the prospectus, and the bait of a guaranteed interest of 10 per cent. for five years, induced some 210 outsiders to take shares in the concern; but this, instead of raising the necessary capital, only brought (say) 400,000*l.*, or less than two-thirds of the advertised amount. Out of this sum the vendors received 301,000*l.* for the properties as valued, and 12,822*l.* additional for the interest on bills and extra capital expended between the date of valuation and transfer. Deduct these sums from 399,750*l.*, and there was only 85,928*l.* left for working capital and stocks, instead of 200,000*l.*, the sum estimated as necessary in the prospectus. Out of this 85,928*l.* the directors paid the vendors 63,458*l.* for stocks on hand, leaving only 22,470*l.* for working capital. In this condition the directors proceeded with the working of the concern, to find at the end of 10 months that they had lost fully 124,000*l.*, or more than half the working capital estimated as necessary in the prospectus. Consequently, at the end of March, 1874, the company stopped, and "the directors were appointed the liquidators." At this arrangement the deluded shareholders are indignant, and they are surely justified in insisting on liquidation by persons entirely independent of the original directorate. At present a veil rests on the whole proceedings of the company, which must be drawn asunder, and the unfortunate facts revealed. Since the suspension two of the Messrs. Hannay have been laid in their graves—the father and eldest son—but they had their coadjutors, who should not be permitted to escape by assuming the disguise of liquidaters.

THE SCOTCH MINING SHARE MARKET—WEEKLY REPORT AND LIST OF PRICES.

During the past week the amount of business done has increased, but still the business doing is only moderate. Coal and iron shares were at one time very weak, but have recovered, and are a trifle firmer, although the closing prices are generally lower than those of last week. Copper shares have continued in very good demand, and although the tone is now beginning to look a little dull the closing prices are all higher than those of last week. In other descriptions the market has been quite neglected, and business almost at a standstill. London and Glasgow Engineering and Iron Shipbuilding shares, however, show some signs of recovering the recent depression at 21 to 24. Notwithstanding the recent discovery of a good lode, Dunsley Wheal Phœnix shares have declined to ⅜, ⅝, showing the disinclination of the investing public to buy mining shares, even when they can be had at cheap prices and favourable circumstances. Islay Lead shares are also lower at 3s. 9d. to 8s. 9d. A detailed list of the several days' business follows:—

On Thursday last a good business was done, and prices mostly improved. Benhar done at 14⅜, closing 14⅜ to 14½; Bolckow Vaughan "A" firm at 55 to 55½; Dunsley Wheal Phœnix lower at ½; Emma done at 25s., closing 24s. to 25s.; Glasgow Caradon improved, being done at 31s. 6d. to 32s., closing 31s. 6d. to 32s. 6d.; Port Washington done at 81s., closing 80s. to 81s.; Javali firm at 4s. 6d. to 5s.; Marbella done at 5⅝, closing firm at 5⅝ to 5 11-16ths; Merry and Cuninghame were again lower, being done at 71s., 70s. 6d., and 70s., closing about 70s. 6d.; Monkland ordinary done at 92s. 6d., closing 92s. to 93s.; Niddrie done at 52s. A small lot of Shotts Iron new shares changed hands at 6; Tharsis were largely dealt in, and after advancing to 26⅛, close 25⅞ to 25⅞, or a rise of ⅛ for the day; New shares were done at 17 11-16ths, closing 17⅝ to 17¾; Scottish Wagon shares 12 to 12¼; Yorke Peninsula ordinary keep firm at 8s. 9d. to 11s. 3d.

On Friday a good business was again done, but prices were in most cases reduced. Caradon and Marbella improved. Benhar done at 14¼ and 14⅜, closing 14¼ to 14½. Cwm Lery offered at ⅝, buyers nominally at ½. Canadian Copper Pyrites unchanged, at 50s. to 52s. Dunsley Wheal Phœnix, ⅜ to ⅝. Ebbw done at 22½, closing 22¼ to 22½. Emma, 24s. to 25s. Glasgow Caradon again in demand, done at 32s. 6d. and 33s., closing 33s. to 33s. 6d. Port Washington done at 80s., closing flat at 75s. to 79s.; notwithstanding this the all-paid shares advanced ¼, being done at 6¾. Gunnislake (Clitters), 1⅝ to 1⅝. Huntington done at 62s., closing 60s. to 61s. Islay Lead unchanged, at ⅜ to ⅝. Javali steady, at 4s. 6d. to 5s. Marbella were good, opened at 5⅝, but advanced to 11s., closing 11s. to 5¾. Merry and Cuninghame done at 71s. and 70s., closing better at 70s. 6d. to 71s. Monkland ordinary lower, at 92s. to 92s. 6d. Niddrie, 51s. to 52s. Amoa and Cleland firmer at 62s. to 64s. Shotts Iron new were again done at 6. Tharsis opened at 25⅞, but declined to 25⅝, closing 25⅝ to 25¾. New shares, however, improved, being done at 17¾, closing 17¾ to 18. Young's Paraffin firmer at 5 1-16th to 5 3 16th. Scottish Wagon unchanged, at 12 to 12¼. West Maria and Fortescue flat, at ⅛ to ⅜. Yorke Peninsula ordinary unchanged at 8s. 9d. to 11s. 3d.

On Saturday a good business was done, and prices improved. Benhar, 14 to 14½. Ebbw shares done at 22¾, closing 22¼ to 22½. Emma shares done at 24s., closing 24s. to 24s. 6d. Glasgow Caradon shares done at 32s. 6d. and 33s., closing 33s. to 33s. 6d.; the next sale is computed to be 242 tons of good quality ore on the 19th inst. Port Washington shares still flat at 75s. to 76s. Islay lead shares firmer on the result of the meeting becoming more generally known, but still offered at ⅜, buyers at ½. Javali, 4s. 6d. to 5s. Marbella good, done at 5¾ to 5⅞, closing 5¾ to 5⅞. Merry and Cuninghame firmer at 70s. 6d. to 71s. Niddrie, 51s. to 52s. Omoa and Cleland done at 63s., closing 62s. 6d. to 63s. 6d. Tharsis done at 25½ and 25 11-16ths, closing 25⅝ to 25 11-16ths. New shares done at 17¾, closing easier at 17¾ to 17⅞. Uphall Oil shares were offered at 5, being a reduction of 1*l.* per share. Young's Paraffin shares again firmer at 5⅛ to 5¼ Scottish Wagon shares, 12 to 12¼, and Scottish Australian firm at 1⅛ to 1¾. It is announced that the sales for the month of August amounted to 11,897 tons.

On Monday a moderate business was done; prices were generally steady. Benhar, 14¼ to 14½; Canadian Copper Pyrites done at 52s., closing at 52s. to 53s. Cape Copper improved to 28, 29. Colorado Terrible also were better at 3⅛ to 3¾. Dunsley Wheal Phœnix lower, at ⅜ to ½. Ebbw shares done at 22¾, closing 22 to 22¼. Glasgow Caradon done at 33s. and 32s., closing 32s. to 33s. Port Washington done at 73s., being a further fall of 3s. Huntington, 60s. to 61s. Islay lead steady, at ⅜ to ⅝. In Marbella a large business was done from 5¾ to 6, closing 5 15-16ths to 6. Merry and Cuninghame done at 70s. 6d. to 71s., closing at these prices. Monkland ordinary, 92s. to 93s. Niddrie done at 52s. Omoa and Cleland done at 63s. and 62s., closing 62s. to 63s. Tharsis were largely dealt in from 25⅝ to 25¾, closing about these prices. New shares, 17⅝ to 17¾. Scottish Wagon shares unchanged, at 12 to 12¼. London and Glasgow Engineering were wanted at last quotation—21, but sellers at 24 held for a rise of 3*l.* per share

On Tuesday (being contango day) a good business was done, and the market was stronger. Benhar, 14¼ to 14½. Canadian Copper Pyrites done at 52s. 6d. and 53s., closing 52s. to 52s. 6d. Colorado Terrible were ¼ lower at 3⅛ to 3¼. Ebbw Vale done at 22, closing 22 to 22¼. Flag-taff were flat, being offered at 1⅜. Glasgow Caradon done at 32s. and 32s. 6d., closing firm at 32s. 6d. to 33s. Port Washington again declined, being done at 71s., closing a little firmer at 71s, to 72s. Huntington done at 60s. and 59s., closing 58s. to 59s. Islay Lead weak, and ⅛ lower at ¼ to ⅜. Javali steady at 4s. 6d. to 5s. Marbella done at 5 15-16ths, closing 5 15-16ths to 6. Merry and Cuninghame, 71s. just. Monkland, ordinary, done at 92s. 6d. and 93s., closing 93s. to 93s. 6d. Panulcillo declined ¼, being offered at ⅝, buyers at ⅜. Rio Tinto were better at 8 to 8⅛. Russia Copper improved to 2¾, 3. Tharsis were strong, and largely dealt in from 25⅞ to 26⅛, closing 26 7 16ths to 26⅛; new shares also good at 18¼ to 18½. Scottish Wagon shares firmer at 12⅛ to 12¼. The following were the rates of continuation current to day:—Contangoes: 3*d.* on Canadian Copper Pyrites: 1½d., 2*d.* on Emma; 1*d.* even on Glasgow Caradon; 3*d.* on Port Washington; 2½*d.* on Huntington; 1*d.*,

6, 7; South Carn Brea have been moderately dealt in at from 30s., 32s. 6d., to 32s. 6d., 35s., at which they close. In Tincrofts a good business has been done at 30, 31; West Bassets firmer at 8¼, 8¾. In West Frances there a good enquiry for shares at 9½, 10; West Tolgus lower and weaker, 73, 75; Kitty (St. Agnes), 5, 6; Wheal Uny firm, 3½, 3¾; Wheal Peevors after their great rise have declined to 5½, 6; Unity Wood, 2s. 6d., 5s.; Botallack, 45, 50.—*West Briton.*

CHAPEL HOUSE.—Another dividend at the rate of 15 per cent. becomes payable on Monday next. We understand that the output of coal has been much increased during the past fortnight, and that prices on the Liverpool coal market are rising, with a brisk business. The new pits are being sunk rapidly and steadily, and everything is reported to be going on in a most satisfactory way.

SOUTH CONDURROW.—We learn that consents to a special general meeting have been received from nearly 3000 shares to restore Messrs. Vivian to the post of managers. The shareholders will do well to support the efforts of Mr. Bartlett, and not be induced to deviate upon any counter statements.

NEW GELLIVARA.—Recently this company has confined its operations to the timber business, and has not worked the large deposits of iron ore which exist on the property. In February last, however, one of the furnaces was blown in, and in six months working 300 tons of pig-iron were produced, of which 10 tons are now on their way to this country, whilst the remainder will be made into bars at the company's works. The ore treated was chiefly purchased in the South, but a portion of it was brought down from the Gellivara Mountains by the Laps or reindeer, and it is from this latter real Gellivara ore that the 10 tons of iron ore now on its way to this country was obtained. The directors intend to blow in another furnace shortly, a sufficient stock of ore having been laid in for the purpose. It remains to be seen whether this laudable enterprise will prove a commercial success.

INVESTMENTS AND SPECULATIONS.—The fifth edition of this small pamphlet is issued by Mr. Charles Thomas, of 3, Great St. Helens. As stated in the preface, it is three years since the issue of the fourth edition, which was noticed in the columns of the Journal; it was then stated that nothing would be lost by a perusal of the book, for there was much good advice in the introduction, and much valuable information with regard to many mines in the preface and general text. In the presene state of the mining market any information or advice from practical authorities respecting the position or prospects of the different undertakings now before the public must be acceptable.

A NEW SOURCE OF DANGER TO RAILWAY TRAVELLERS.—We regret to hear that Mr. Von Uster, F.G.S., the secretary and mining engineer to the Burrow and Butson Mining Company, on his return from the mines, in passing from his compartment to the luggage van at the Paddington Station, struck with great force against a low lamp truck, which with culpable negligence had been left inside the railing in the path for passengers, and injured both his legs severely. He is ordered complete rest for some time, putting him, and, of course, his friends also, to much inconvenience.

A new mining district in Nevada has been suggestively named the Golden Fleece.

IN THE MATTER OF THE BESSEMER STEEL AND ORDNANCE COMPANY (LIMITED),

AND IN THE

MATTER OF THE COMPANIES ACTS, 1862 AND 1867.

THE CREDITORS of the ABOVE COMPANY are required on or before the 31st day of December, 1874, to SEND their NAMES and ADDRESSES and the particulars of their DEBTS or CLAIMS, and the names and addresses of their Solicitors (if any), to Mr. CHARLES FITCH KEMP, at No. 8, Walbrook, in the City of London, one of the Official Liquidators of the said Company; and if so required by notice in writing from the said Official Liquidator, are, by their solicitors, to COME IN and PROVE their said DEBTS or CLAIMS at the Chambers of the Vice-Chancellor Malins, at No. 3, Stone Buildings, Lincoln's Inn, in the county of Middlesex, at such time as shall be specified in such notice; or, in default thereof, they will be EXCLUDED from the BENEFIT of any DISTRIBUTION made before such debts are proved.

Friday, the 15th day of January, 1875, at Twelve o'clock at noon, at the said Chambers, is appointed for hearing and adjudicating upon the debts and claims.

ALFRED RAWLINSON, Chief Clerk.

Dated this 4th day of November, 1874.

IN THE MATTER OF THE COMPANIES ACTS, 1862 AND 1867,

AND IN THE

MATTER OF THE WEST PANT-Y-GO MINING COMPANY (LIMITED).

THE CREDITORS of the ABOVE-NAMED COMPANY are REQUIRED to SEND their NAMES, ADDRESSES, and FULL PARTICULARS of their CLAIMS, on or before the 24th instant, to FRANCIS REED WILSON, of No. 20, St. Helen's-place, London, E.C., Liquidator of the said company, and, if so required by notice in writing from the said Liquidator, are personally or by their solicitors to prove their said debts or claims at such time and place as shall be specified in such notice, or in default thereof they will be EXCLUDED from the BENEFIT of any DISTRIBUTION made before such debts are proved.—Dated this 10th day of November, 1874.

IN THE MATTER OF THE COMPANIES ACTS, 1862 AND 1867;

AND IN THE

MATTER OF THE PHŒNIX SILVER-LEAD MINING COMPANY (LIMITED).

AT an EXTRAORDINARY GENERAL MEETING of the Shareholders in the PHŒNIX SILVER-LEAD MINING COMPANY (LIMITED), duly convened, held at the Account-house, on the Mines, Perranzabuloe, in the county of Cornwall, on Wednesday, the 9th day of September, 1874, at One o'clock in the afternoon, the following Special Resolutions were duly passed.

And at a subsequent EXTRAORDINARY GENERAL MEETING, duly convened, and held at the same place on the 3rd day of October, 1874, the said resolutions were duly confirmed, as required by the Statute. That is to say—

"That the company be wound up voluntarily."

"That Mr. FREDERICK WARWICK, of 25, Bucklersbury, in the City of London, be appointed Liquidator."

IN THE MATTER OF THE COMPANIES ACTS, 1862 AND 1867;

AND IN THE

MATTER OF THE PHŒNIX SILVER-LEAD MINING COMPANY (LIMITED).

IN LIQUIDATION.

THE CREDITORS of the ABOVE-NAMED COMPANY are requested, on or before the 23rd day of December next, to SEND their NAMES and ADDRESSES, and the particulars of their DEBTS or CLAIMS, and the names and addresses of their solicitors (if any), to Mr. FREDERICK WARWICK, of No. 25, Bucklersbury, in the City of London, the Liquidator of the said company; and if required by notice in writing from the said Liquidator are, by their solicitors, to COME IN and PROVE their DEBTS or CLAIMS at such time as shall be specified in such notice; or, in default thereof, they will be EXCLUDED from the BENEFIT of any DISTRIBUTION.

FREDERICK WARWICK, Liquidator.

Dated this 11th day of November, 1874.

EBERHARDT AND AURORA MINING COMPANY (LIMITED).

Notice is hereby given, that an EXTRAORDINARY or HALF-YEARLY GENERAL MEETING of the Shareholders of this Company will be HELD on MONDAY, the 23rd of November, 1874, at Two o'clock in the afternoon, at the Terminus Hotel, Cannon-street, for the following purposes, viz.:—

To receive a report of the Directors and Statement of Accounts up to the 30th of June last.

To appoint and to confirm the appointments of Directors, and to fix their remuneration.

The Register of Transfers will be closed on the 20th inst., and will continued closed until the 24th November, both days inclusive.

By order, ALFRED CRITCHETT, Secretary.

Dated this 13th day of November, 1874,
Company's offices, 15, Angle-court, Throgmorton-street, London, E.C.

THE SCOTTISH AUSTRALIAN MINING COMPANY (LIMITED).

Notice is hereby given, that the HALF-YEARLY GENERAL MEETING of the Shareholders of the Scottish Australian Mining Company (Limited) will be HELD at tue London Tavern, Bishopsgate-street, London, on FRIDAY, the 20th November instant, at Twelve o'clock at noon precisely, to receive the directors' report and accounts, declare a dividend, and transact the other usual business.

The Share Transfer Books will be closed from Thursday, the 12th instant, until Friday, the 20th instant, both days inclusive.

By order of the Directors,
C. GRAINGER, Secretary.

1, King's Arms-yard, Moorgate-street, London, 7th November, 1874.

ST. DENNIS CONSOLS.—It having been ascertained that NO LEASE of the MINE was ever TAKEN UP, PERSONS who BOUGHT SHARES are requested to communicate as under with the view of taking JOINT ACTION AGAINST the VENDOR of the SHARES.

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IRONSTONE.—ABOUT TWO HUNDRED AND NINETY ACRES may be LEASED, or possibly PURCHASED at once. No agents need apply. For particulars, write to MISS PEIRSON, Pickering.

FOUR THOUSAND TONS 72 lbs. FLANGE RAILS; TANK LOCOMOTIVES, by leading builders, 9 in. to 17 in. cylinder; COAL, COKE, and HOPPER WAGONS; fifty sets of WHEELS and AXLES, for 7 ton wagons; and other PLANT—FOR SALE, CHEAP.

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MR. J. S. MERRY
ASSAYER AND ANALYTICAL CHEMIST,
SWANSEA.

*** With this week's Journal a SUPPLEMENTAL SHEET is given, which contains—Original Correspondence: Mining in Queensland; Mining in Colorado Territory; Richmond Consolidated Mining Company; Mining Enterprise, and Mr. Henry Sewell (George Attwood): What is Electricity? (R. J. Krickmer); Providence Mines (E. Trythall); South Wales Quarrymen's Strike; Roman Gravels Mine, and Mr. Richard Tredinnick; South Condurrow Mining Company (W. Leach, H. Waddington, E. J. Bartlett, R. Knapp, R. Tredinnick); Recent Meetings—Mine Management; Cwm Shop, West Cwm Erfin, Melindur Valley; Van Consols Mine; Bryntail and Van Consols.—Foreign Mining and Metallurgy—Foreign Mine Reports—Patent Matters, &c.—Meetings of the Utah Silver-Lead, Silver Creek Gold, East Pool, West Chiverton, South Frances, Blaen Cwm Bach Steam Coal, and Parbola Companies.

The Mining Market: Prices of Metals, Ores, &c.

METAL MARKET—LONDON, NOV. 13, 1874.

COPPER.	£	s.	d.	£	s.	d.
Best selected...p. ton	96	0	0	98	0	0
Tough cake and tile.	95	0	0	97	0	0
Sheathing & sheets...	98	0	0	100	0	0
Bolts	100	0	0	103	0	0
Bottoms	101	0	0	103	0	0
Old	85	0	0	87	0	0
Australian	95	0	0	96	10	0
Wire ...per lb.	0	1	0½	–		
Tubes	0	1	2	0	1	3

BRASS.	per lb.
Sheets	9½d.– —
Wire	9½d.– —
Tubes	12d.– —
Yellow metal sheathing	8¼d.–8¾d.
Sheets	8½d.– —

SPELTER.	per ton.					
Foreign on the spot..	24	10	0	24	15	0
,, to arrive ...	24	0	0	24	5	0
ZINC.						
In sheets	30	0	0	31	0	0
QUICKSILVER (p. bot.)	26	0	0	–		

TIN.						
English blocks ...	£100	0	0	101	0	0
Do., bars (in brls.)	101	0	0	102	0	0
Do., refined	102	0	0	–		
Banca	100	0	0	102	0	0
Straits	94	0	0	95	0	0
Australian	93	0	0	–		

TIN-PLATES.*	per box.					
IC Charcoal, 1st qua.†	£1	16	0	–		
IX Do., 1st quality ...	2	0	0	–		
IC Do., 2d quality ...	1	15	0	–		
IX Do., 2d quality ...	2	1	0	–		
IC Coke	1	6	6	1	9	0
IX Ditto	1	12	6	1	15	0
Canada plates, p. ton..	19	0	0	–		
Ditto, at works	18	10	0	–		

* At the works, 1s. to 1s. 6d. per ton less. † Add 6s. for each X.

Terne-plates 2s. per box below tin-plates of similar brand.

IRON. per ton.	£	s.	d.	£	s.	d.
Bars Welsh, in London	9	5	0	–		
Do., to arrive	9	0	0	–		
Nail rods	9	15	0	–		
,, Staffd. in London..	10	5	0	11	0	0
Bars ,, ditto ...	11	0	0	12	0	0
Hoops ,, ditto ...	12	0	0	–		
Bars ,, at works ...	10	0	0	11	0	0
Hoops ,, ditto ...	11	0	0	12	0	0
Sheets, single, & plates	12	15	0	14	0	0
Pig No. 1, in Wales ...	5	0	0	8	10	0
Refined metal, ditto ...	7	0	0	8	0	0
Bars, common, ditto...	8	5	0	8	10	0
Do., merchant, f.o.b. in Tyne or Tees...	8	10	0	–		
Do., railway, in Wales..	7	0	0	7	5	0
Do., Swed. in London.	16	0	0	17	0	0
To arrive	17	5	0	–		
Pig, No. 1, in Clyde ...	4	7	0	5	12	6
Do., f.o.b. Tyne or Tees	4	0	0	4	5	0
Do., Nos. 3, 4, f.o.b., do.	3	10	0	4	0	0
Railway chairs	5	0	0	5	5	0
,, spikes	12	10	0	14	0	0
Indian Charcoal Pigs, in London, p. ton ...	8	0	0	10	0	0

STEEL.	per ton.					
Swed., in kegs (rolled)	–			–		
Ditto (hammered)	19	0	0	20	0	0
Ditto, in faggots	20	10	0	–		
English, spring	19	0	0	24	0	0

LEAD.	per ton.					
English Pig, com.	23	10	0	–		
Ditto, L.B.	23	10	0	–		
Ditto, W.B.	23	10	0	–		
Ditto, sheet	24	10	0	24	15	0
Ditto, red lead	24	15	0	25	0	0
Ditto, white	30	0	0	32	0	0
Ditto, patent shot	26	10	0	26	15	0
Spanish	23	0	0	–		

REMARKS.—Metals generally occupy a sound and healthy position, and with the exception of manufactured iron, in which the trade exhibits symptoms of business, on the whole is considered satisfactory. The clearnces effected lately for consumption are remarkably surprising, especially in copper and tin. The available stocks of both are now considerably reduced, and if the former contiuues for any length of time at its present rate of deliveries a great scarcity will ensue. The improvement in value, however, has not been commensurate with the magnitude of the transactions, and it would only seem that we are just at the beginning of what may ultimately prove a very important epoch in the market. Lead and spelter are also well placed, and command good prices. Quicksilver has attained an altitude unknown for very many years past. No alteration having been made in the Bank rate last Thursday has allayed any uneasiness that might have prevailed respecting dearer money, but the commerce of the country appears to be settled upon such a sure footing that any moderate advance in discount would very slightly affect the regular flow of trade.

COPPER.—A very satisfactory business has again been transacted this week, and enhanced prices have been realised. The demand for consumption continues extremely good, and the present supplies seem inadequate to existing requirements. The announcement of the Chili charters for the first half of October being 1600 tons, is another proof of the comparatively small quantity that will be shipped during the next four months, and as there were only 3100 tons in the whole of September stocks in England cannot, evidently, be increased; but, on the other hand, with the extraordinary demand that has sprung up, may very considerably decrease. The statistical position of our market cannot be unknown to Chili, and, therefore, we may fairly assume one of two things—either she cannot produce more, or that prices are unremunerative. The cause, however, is immaterial; the fact that the recent charters are much under the usual average is sufficient for our guidance, and no one forming an unbiassed opinion of the market can fail to be favourably impressed with its present condition, and thoroughly convinced of the upward tendency in prices. We state this not more in behalf of sellers than of buyers, as it must necessarily be of the utmost consequence to the consumer to be duly warned of any decided course the market is taking. It may be undesirable to have sudden advances in price, but it will be unavoidable if the reduction in stock goes on as rapidly as heretofore, and as the next return will probably show a further diminution buyers must be fully prepared to see enhanced rates. Most of the sales lately of Chili bars have been on cash terms, and this is really a very important feature, as it not only demonstrates the *bona fides* of the transactions, but also shows that the copper is going into strong hands, and for consumption and shipment. As yet there has been little bought for long dates, and cash parcels have commanded as high a rate as deferred prompts.

There has been no rampant speculation, and the market has risen purely upon its own merits, and rests upon a substantial basis. Under these circumstances the immediate future of the market is exceedingly good. There is little fear of a reaction, and the improvement promises to be lasting and well supported. Generally on previous occasions, when the market has advanced, the manufacturing branch has been less sustained, but within the last few days sales of 3 by 4 Indian sheets have been made at 97*l.*, and this also may certainly be taken as a very encouraging sign. Further orders will, doubtless, quickly follow when the improved state of our market is better known and understood. As a leading contemporary this morning has commented upon the present state of our market we think it only right to caution the trade against the statement. The paragraph is not only very ambiguously worded, but calculated to mislead and throw suspicion upon the accuracy of the statistics and records that have never been questioned before. The most lenient construction we can put upon it is that the writer must be in an utter state of ignorance of the subject. It has produced no effect whatever upon the upward tendency of our market, and we dismiss it as being unworthy of the slightest consideration.

IRON.—The condition of the iron trade in South Wales is again as far from a satisfactory settlement as ever. Labour disputes are once more imminent, and it is almost certain that the further contemplated reduction of 10 per cent., which is announced to come into force on the 17th inst., will be resisted by the men. This will make the third reduction of 10 per cent. which has been enforced during the present year. Unpleasant as it doubtless is to the working man to have to face so large a reduction, yet if the necessities of the trade demand it it would surely be better to submit than by stopping the works altogether, which a strike of course necessarily involves to enter upon the winter season with all the calamities incident upon a period of enforced idleness in view. It is well to bear in mind that if wages have been reduced 30 per cent. the price of iron has undergone a still greater depreciation during the year, and is now fully 40 per cent. cheaper than it has been within that period, and even at this depreciation it is far from easy to effect contracts. With wages still further reduced the margin of profit upon iron is so small that it is a matter of great indifference with the masters whether they carry on business at their rates or not. The weight of the calamity will certainly fall upon the men should they refuse to work at the proposed reduction.

The market in the North of England is fairly supported by the continuance of the demand for pig-iron, as also for the Continent. This demand is exceptionally good, and has lasted now through a considerable period. The last published weekly shipments to the Scotch coast were in excess of the shipments for the corresponding week last year to the extent of 4000 tons. The result of this support to the market is that the price of pig-iron has been fully maintained, and that notwithstanding some increase in the output stocks have not increased. The trade in finished iron is not brisk, more particularly that branch which forms the main stay of the northern markets. The enquiry for rails has fallen away to a very serious extent, so much so that many of the rail mills are on short time, and some are closed altogether. There are, however, a few where the conditions are exceptionally favourable, and the owners are able to offer to undertake rail contracts for ordinary sections at 7*l.* 10s. per ton. The remaining branches of the finished iron trade are fairly supplied with work. The demand for ordinary merchant iron, though not so good as it has been, still affords a measure of strength to prices, and makers will fer some little time continue to be engeged upon orders already booked. The same may be said for the plate trade, but owing to a strike among the shipwrights for a shortening of the hours of work throughout the winter season the consumption is lessened, and fresh orders do not come in very freely. The price of Scotch pigs to-day is 85s. 6d. to 85s. 9d., with slightly better demand.

LEAD.—The firmness of the market continues, and sellers will not dispose of more than moderate quantities at present rates. Speedy deliveries of large parcels are still difficult to obtain, owing to the very limited importations of the last few months, but it is hoped that increased supplies from Spain will soon be received, and that there will be less inconvenience than hitherto experienced on this account: besides, current rates offer but little or no inducement to shippers to the East, and the demand, therefore, is not unlikely to slacken off for these ports. This undoubtedly would afford further relief to the existing strain on smelters, and thus enable the market to recover in some degree its former equillibrium, and allow of sellers accepting business of greater magnitude with more reliable and reasonable periods of delivery than they are willing or see their way clear as yet to commit themselves to.

SPELTER.—The market maintains its former position, but there have been few transactions reported. Silesian is not in very plentiful supply, and stocks are much reduced in London. English is quoted 25*l.*; hard, 16*l.* to 16s. 10d.

ZINC.—160 tons of London rolled were offered for sale by public auction on the 12th, 105 tons of which were sold at 22*l.* 10s.

TIN-PLATES.—In coke, sales have been effected at 26s. 6d., but the demand is not very brisk at this price. Charcoals are more wanted, and command better sales in comparison with cokes.

QUICKSILVER.—The price is at least 25*l.* per bottle, but sellers are not disposed to make sales to any extent at this price, and it is not impossible higher prices will rule.

STEEL.—Foreign steel continues neglected, but prices have not undergone any material alteration.

TIN.—A good enquiry exists for consumption, and prices continue to be upheld with firmness. Several lots of Straits have been disposed of both on the spot and for arrival, likewise Australian, and the market closes steady at our quotations. The Netherlands Trading Company advertise their next sale of Banca for Nov. 26, when 20,000 slabs will be brought forward.

Messrs. Vivian, Younger, and Bond—COPPER: On the 9th inst. the charters for the first half of October were advised by cable from Valparaiso, dated the 17th ult., as equal to about 1600 tons in fine copper, but without further details. This quantity being moderate, the market once more resumed the firm appearance of the preceding week, and again large transactions took place in Chili bars, at from 87*l.* to 88*l.*, both on the spot and to arrive. The slight panic at the end of last week, as might have been expected, produced some desire amongst speculators to realise the profits of their late purchases. In this manner a good deal changed hands, but the main feature of the market is the scarcity of bars of good brands on the spot, which are much in request from consumers, and command very full rates. Australian sorts are firmly held for a proportionate advance, but are rather neglected at present. In furnace material sales of good ores, at 16s. 7½d. to 16s. 9d. per unit, and in Chilian regulus a cargo to arrive is reported at 17s. 6d. per unit. The smelters have advanced their rates to 103*l.* for strong sheets, and 97*l.* for best selected, and 95*l.* for tough, which at present are rather protective than otherwise, though at 2*l.* less for unmanufactured there is a good enquiry.——TIN: Straits and Australian slab have commanded full rates on the spot, owing to the small quantities offered from day to day, and prices are about 20s. dearer for the week. The Dutch Trading Company have announced that at their usual public sale, on the 26th inst., 20,100 slabs of Banca only will be offered. For arrival, Straits, 94s. has been paid, November-December shipment, and 93*l.* for Australian, ship named.

Messrs. James and Shakspeare—COPPER: Sales of ore by private contract are reported at 16s. 9d. and 17s., and of regulus, to arrive, at 17s. 6d. per unit; the quantity of either sort now available is exceedingly limited, and held for extreme rates. In bars a large trade has been done, but chiefly in parcels to arrive, or for delivery forward, stuff on spot being exceedingly scarce. It will be seen, by reference to our last statistics, that the stock on 1st inst., here and on the Continent, was only 13,616 tons in all; lower, in fact, than in January, 1872, when the figures stood at 13,989 tons, the price of good ordinary brands being then 90*l.* per ton. The quantity of bars afloat from Chili at that period was about 6500 tons, whereas at present it is about 3200 tons only; we are, therefore, evidently approaching the time of very low stocks, and a consequently sensitive market; for it must not be forgotten that consumption is so much greater now than in former years, as to require larger supplies than were then necessary. Australian sorts have participated in the general improvement, but the trade therein was not particularly brisk. Smelters have advanced their official quotations for English to the top figures given on our list, and although several of them are apparently unwilling believers in the permanence of the advance, yet they carefully refrain from booking orders, except at remunerative prices, and even on such terms will not compromise themselves, except to a limited extent; from which the inference might be drawn that the rise has caught them short of stock.——TIN: English continues rather quiet, but smelters are asking higher rates, and appear willing to take orders only at their own prices. The rise in the value of foreign sorts has been maintained, and we have again to note a good business both in Australian and Straits, though during the last day or two the former description was somewhat neglected, whilst in the latter some speculation is still going on. The Dutch auction of Banca is fixed for 26th inst., when 20,100 slabs will be offered for sale. Owing to a printer's error, which passed unnoticed, the imports of Australian metal were put down in our statistics (issued 6th inst.) as 3126 tons, whereas it should have been 3726 tons; the addition of the various sorts was, however, given correctly.

Messrs. Henry Rogers, Sons, and Co.—The metal market has been active this week. Copper is dearer, tin also; other metals especially firm.—IRON: Scotch pigs have advanced 2s.; Middlesbro' are easier. The demand for finished iron is slack, buyers looking for lower prices. Rails are quoted 7*l.* in Wales.—COPPER: The West Coast charters for the first half of October are cabled as 1600 tons copper only, making for the nine and a half months 36,900 tons, against 34,100 tons for the same period last year. Since Nov. 6 a very large trade has been done in bars, up to 88*l.* spot and to arrive, and as high as 17s. 6d. has been paid for regulus. The demand for English copper is very good, and all the second-hand lots were pretty well cleared off the market, the smelters having put their prices to 90*l.*, and 98*l.* for tough and best. Sheets have been sold for India, in moderate quantities, at 97*l.*; and sheathing and other strong copper up to 99*l.*; Wallaroo, 96*l.* 10s.; Burra, 95*l.* There is apparently very little copper offering, even at quoted prices. The demand for yellow metal has not followed that for copper.——TIN: English has been advanced 3*l.*; Australian and Straits are both 2*l.* to 3*l.* better, and the demand all round has improved; 95*l.* 10s., cost and freight, is cabled from Singapore to-day for Straits tin.——SPELTER: 25*l.*, delivered, is being paid for best brands of English, and 24*l.* 15s. for W.H. at outports. Ordinary Silesian sells in small quantities at 23*l.* 15s. Zinc is in good demand, light numbers much wanted, and stocks exhausted.——LEAD is very firm at quotations, foreign being still scarce.

Messrs. Pixley and Abell—GOLD: With the exception of the trifling amounts of 900*l.* from the Brazils and 361*l.* from Africa, there have been no arrivals of gold; and as the demand for the Continent has continued active during the week, recourse has been had to the Bank, and bars and coin to the value of 413,000*l.* taken out. The 76,000*l.* in the Great Britain has also been sold for arrival, and we may look for further withdrawals from the Bank, the French exchanges continuing at a point as to render such operations profitable. The Nevada has taken 20,000 sovereigns to the Brazils.——SILVER: A demand for India during the past week caused a sudden rise in the price to 58d. for a few small amounts, arriving in time for shipment by the steamer leaving to-day. The market is now quiet, and we quote 58d. per oz. as the nearest price. The arrivals during the week comprise 61,040*l.*, all from New York. The P. and O. steamer takes 89,180*l.* to India.

THE IRON TRADE—(Griffiths's Weekly Report).—Friday Evening, Nov. 13.—The Glasgow market for Scotch pigs closed this (Friday) afternoon at 85s. 9d. buyers for G.M.B. iron. We quote makers' No. 1 iron as follows:—Gartsherrie, 106s.; Coltness, 106s.; Calder, 106s.; Langloan, 103s.; Summerlee, 98s.; Monkland, 90s., f.o.b. Glasgow; Glengarnock, 97s.; Eglinton, 89s., f.o.b. Ardrossan; Shotts, 102s. 6d., f.o.b. Leith; Kenniel, 95s. f.o.b. Bo'ness. The market closed this day week in Glasgow at 84s. 6d. sellers, which leaves the value of G.M.B. iron 6d. per ton better to-day than it was this day week. With regard to the general market, there is very little change to notice. The orders here still run on best iron, and the bulk of the business continus to go into the districts indicated in our last report. The deliveries this week in the Thames have been much above the usual average. We have nothing of importance to report in rail contracts, but we are informed that the 30,000 tons of steel rails required for a Canadian railway in the Dominion are already given to a Bessemer rail works in the United States. We have had this information from a reliable source in Liverpool. The agent of a Liverpool is quiet, but in some quarters prospects have improved. The agent of a noted Staffordshire firm has received during the last fortnight good orders for rods, hoops, and sheets. It is thought, however, in Liverpool that any solid resumption in the American trade will not be manifested until the late spring months of 1875. The Mersey Steel and Iron Company at this port are well occupied on steel rails, and are capable of turning out 1000 tons per week. The immense forgings in iron, for which the Mersey Company has a world-wide fame, are being turned out in large quantities, and these famous works continue in full operation. There is no quotable change in the market at Barrow, Middlesborough, or Birmingham this week.

COLLIERIES AND IRON COMPANIES.—Colliery shares have met with considerable enquiry during the week, especially Thorp's Gawber, Bilson and Crump, Cardiff and Swansea, and Chapel House. West Cumberland Iron, 4 to 5 dis.; Stanley Coal, A, 117½ to 118¾; Bilboa Iron, 42 to 43½; Sheepbridge 6¾ dis.; Hopkins Gilks, 3¾ to 2¾ dis.; John Bagnall, 7 to 7½; Sheepbridge Coal, 83 to 84; New 10*l.* shares, 16½ to 17½; Silkstone Fall, 25s. to 27s.; Palmerstone and Dodworth, 20½ to 21½; Merry and Cuninghame, 70s. to 72s.; Palmer's Shipbuilding, 6½ to 5½ dis. At a meeting of the Wigan delegates on Wednesday it was decided that the men return to work for a fortnight at the 10 per cent. reduction, and that at the end of that time notice should be given asking for the 10 per cent. back again. It was also resolved to start work to-day. On the same day a deputation of miners waited upon the managers of the Norley Coal Company and offered to resume work for a fortnight at a reduction of 10 per cent., provided that at the expiration of the fortnight they should be paid at the old rate. The proposition was declined. The proposed 10 per cent. reduction to the ironworkers of South Wales has not yet been accepted by the men, who appear to feel strongly against the drop, accusing the masters of attempting to throw upon the workpeople

the entire loss resulting from the existing depression of trade. Albion Steel, 2 to 2¼; from the directors' report we observe that the profits made by Mr. A. Davey in his dealings with the company have been recovered, but no settlement has yet been made with Mr. S. Martin for similar profits. The deed of compromise between the vendors and the company received the written assent of every shareholder, and was completed within the specified time. A proposition has been mooted of reducing the capital to (say) 23,000*l.*, making the value of each share about 3*l.* 10s. Bilson and Crump, 10½ to 11; Chapel House, 4½ to 4¾; Clee Hill, 7s. 6d. to 10s.; Cardiff and Swansea, 4¼ to 4¾; Thorp's Gauber, 13½ to 15½; United Bituminous, 5s. to 10s.

The MINING SHARE MARKET has been a little firmer for tin shares, but without any material alteration in quotations, or in the amount of business transactions. The settlement of the fortnightly account was comparatively a small affair.

The miner has been labouring under the impression for some time past that the stocks of copper in hand were low and diminishing, and that he was not receiving for his ores a price at all commensurate with the price the smelters were making for the metal. And, further, that the rise in metallic copper of late had been greater in proportion than the rise in the ores. This opinion was also confirmed by a statement in the *Mining Journal* of last week that the price of bars, which on Oct. 1 was 81*l.* 5s., had advanced to 87*l.* 10s. —a far greater rise that we have had in the ores. Again, it was also stated in the same article on the copper trade that in the month of October the stocks in hand had *decreased* 2000 tons; in which, including quantities afloat and chartered, there was also a decrease of 1500 tons. A correspondent of the *Times*, however, would seem to make out the very reverse of all this, for he says, "While prices are 2 to 3 per cent. *lower* for the smelted copper, prices for the ores have gone up 5 or 6 per cent. during the year without any distinct cause." Now, during the year the standard for copper ores has been very much depressed, and in the month of October rose about 7s. per ton to the miner, while it will be seen in the same *month* Chili bars rose 6*l.* 10s. per ton.

The shares dealt in since our last have been Wheal Peevor, Pennerley, Hingston Down, Tankerville, Roman Gravels, Carn Brea, Wheal Grenville, Penstruthal, Providence Mines, Wheal Kitty (St. Agnes), East Grenville, Devon Great Consols, West Basset, and a few others.

Wheal Peevor shares have been weaker, and leave off 6 to 7; a vugh, or open cavity, appeared in the lode at the shaft, and reduced its value to 30*l.* per fathom; this vugh, we understand, has drained the water from the sink below the 48, where the lode, as far as can be seen, is worth 40*l.* per fathom. Carn Brea, 55 to 57½; the different points in operation at the mine are worth in the aggregate 301*l.* per fathom.

South Frances, 10 to 12; at the meeting, held in Cornwall, a call of 4*l.* per share was made. The accounts showed—costs from June to September, 3068*l.* Credits—tin sold, 1650*l.*; copper ores, 66*l.*; sundries, 28*l.*: total, 1687*l.*; and a loss on four months' working of 1323*l.* Balance against the company, 2081*l.* The agents' report anticipates for the ensuing three months about the same loss per month as at present. A resolution was passed expressing entire confidence in the present executive, including its purser, manager, and agents. For the month of October 10 tons of tin were sold from the new tin lode, thus showing what can be done when the ground is properly laid open and ventilated. West Seton, 20 to 22; at the meeting, on Tuesday, the accounts showed a loss on three months' working of 302*l.*, and a balance in hand of 755*l.* The sales of copper realised 2670*l.*; arsenic, 165*l.*; tin, 43 tons, 2367*l.* But for an accident to the machinery the returns of tin would have been greater. The lode in the 150 is small at present, but the indications are good, and in a few fathoms further driving it will come under a large and profitable lode gone down in the 140.

East Pool, 8 to 8¼; at the meeting held on the mine, which was rather stormy in reference to the debts, the accounts for two months showed—sales of ore, 507*2l.*; costs, 3394*l.*: profit, 1077*l.* The accounts were charged up to June, and as an excuse for the debt it was explained by the Chairman that the mine had been put to an expense of 17,000*l.* altogether, through a series of misfortunes; but he congratulated the shareholders on the brilliant prospects now before them. The agent's report says that the general appearance of the mine is fully equal to what it has been at any former period, and the advantages gained by the communication of the two levels at the 130 enable them to assert that the returns will be gradually augmented. Devon Great Consols, 1½ to 2; the 145 east on the new south lode, is a good course of ore, worth 10 tons, or 50*l.*, per fathom. The 130 east is worth 10*l.* per fathom. Kitto's winze, below the 115, at railway shaft, is worth 3 tons of ore per fathom. James' rise, in back of the 100, is worth 4 tons per fathom. Wheal Grenville, 5 to 5½; the lode in the 160 cross-cut is worth 35*l.* per fathom. In the 130 cross-cut ground more favourable.

Cargoll, 1⅞ to 1¾; at the meeting held in Cornwall a call of 3s. per share was made. The debit balance was 1094*l.* The prospects of the mine are considered good. Parbola, 1 to 1¼; at the meeting, held on Thursday, the accounts showed a balance against the company of 2955*l.*; which is to be turned into a limited liability company, of 4000 shares, at 6*l.* each. The tin ores sold up to Oct. 23 realised 1981*l.*, and the agents hope ere long to increase the return so as to make a considerable profit. West Tolgus shares have declined to 73, 75, owing to an accident to the machinery. Wheal Jane has been in demand at 3⅜, and the mine looking well. Wheal Uny, 3¼ to 3½, buyers. Hingston Down has advanced to 1⅝, 1¾; a telegram has been received from Capt. James Richards this afternoon, stating that there has been an important improvement in the 110 west; there is a fine lode, worth 30*l.* per fathom, and promising further improvement. The 150, east of winze, has also improved; it is now worth 20*l.* per fathom, and most promising. Cook's Kitchen, 9 to 10; Dolcoath, 48 to 50; East Caradon, 1 to 1¼; East Van, ⅞ to 1; Gawton, ¼ to ⅜; Great Van, 15s. to 20s.; Ladywell, 2¾ to 3; Marke Valley, 1 to 1¼; Pennerley, 1¼ to 1⅜; Penstruthal, 11s. to 13s.. Prince of Wales flat, at 7s. 6d. to 10s.; Providence Mines, 5 to 5½; Roman Gravels, 13 to 14.

Rosewall Hill and Ransom United, 5s. to 7s. 6d.; South Carn Brea, 1⅛ to 1⅜; South Caradon, 100 to 120; South Condurrow, 4 to 4½; Tankerville, 7 to 7¼; Tincroft, 30 to 31; Van, 22½ to 25; Van Consols, 2¼ to 2⅜; West Basset, 8½ to 9; West Esgair Lle, 2¼ to 2⅜; West Frances, 9 to 10; West Maria and Fortescue, 7s. 6d. to 12s. 6d.; Wheal Basset, 20 to 22½; Wheal Crebor, 1¼ to 1⅜; Wheal Kitty (St. Agnes), 5 to 5½. South Roman Gravels, 12s. 6d. to 17s. 6d.; the agents are looking for a good discovery here. In the 20 east the lode is 3½ ft. wide, composed of carbonate of lime, interspersed with lead ore throughout. This end it is expected will shortly intersect the new lode. The 20 west is producing splendid lumps of solid lead ore. The new engine works well. Cathedral, 17s. 6d. to 22s. 6d.; this mine is said to be looking well. East Grenville shares have been in request at 7s. 6d. to 10s. Parys Mountain, 6s. to 8s.

Cape Copper, 28 to 30; Eberhardt and Aurora, 4½ to 5; Emma, 1 to 1¼; Flagstaff, 1½ to 1⅝; Last Chance, ⅝ to 1⅛; New Quebrada, 3⅛ to 3⅜; Richmond, 7 to 7¼; Sweetland Creek, 2⅞ to 3¼; Tecoma, ⅜ to ½.

The Market for Mine Shares on the Stock Exchange during the week, although somewhat interferred with by the fortnightly settlement which was completed yesterday (Friday), has maintained the firm and active tone observable during the past few weeks. The improvement in the trade of the country, as indicated by the recently-published Board of Trade returns, is producing its usual effect upon the value of metals, and a corresponding advance in mining values, notably in lead and tin descriptions, and there seems solid ground for the general impression that with the turn of the year mining investments will be eagerly sought after at enhanced prices.

American mines have continued without feature, and but little business has taken place. Flagstaff shares remain inactive at 1½ to 1⅝, while Richmond, Eberhardt, and others have changed hands at quotations. This department, always comparatively depressed at this season of the year, owing to the partial suspension of operations during the winter, manifests unusual dulness just now from other causes, and little change is anticipated until after the opening of the ensuing season.

Richmond Consolidated, 6¾ to 7¼; cablegram received: "Week's run, 850,000; Richmond ore only." We learn that 100 tons taken out of the first workings on the newly-discovered lode yielded an average assay of $100 in silver to the ton. The ore in this lode, as well as in the previous discovery below the Lizette tunnel, consists of rich carbonates, and is heavy in lead. The more recent cables, which speak of the ore as splendid and the bottom of the lode as magnificent, indicate that the first promise is not diminished in depth. The prospect of increased value of the ore accompanying the great additions made to its bulk is full of promise for the future. It is a significant fact also that in pursuing the work of exploration so much ore is found and taken out that the furnaces are insufficient to deal with much above half, and that the ore is, therefore, accumulatings on the dumps. The make of bullion to this date for the season amounts to $1,078,000. The Eureka Consolidated, a San Francisco incorporation, which adjoins Richmond, has paid three dividends of $50,000 each during the year. On the previous fiscal year four dividends of the same amount were paid, and during the year 1871 $275,000 were thus paid, making a total of $625,000 paid in dividends since the opening of the mine. This property was conditionally acquired in 1870, and, under the name of the Champion Company, was organised with a capital of 60,000*l.* All the capital being subscribed the acceptance of the property was made contingent upon the favourable report of Capt. Frank Evans, who was sent out to Eureka Nevada for that purpose. Capt. Evans, in conjunction with Capt. Brown, the then superintendent of the Pacific Company, made the examination, and sent telegrams and reports condemning the property, and strongly advised its non-purchase. The organisation, nevertheless these unfavourable reports, was kept together for some time, and in the meantime one of the directors visited the property, and strongly recommended the completion of the purchase. In the interval Capt. Evans had returned to this country, and at the meeting called to decide the question of purchase or non-purchase his counsels for non-purchase prevailed, and the loss to the subscribers can only in a measure be seen by the results achieved by the San Francisco Company; for in all probability the present Richmond Consolidated would have fallen into the very same hands, that property having been subsequently offered to the same parties for 55,000*l.* It appears that the shares in the Eureka Consolidated are selling at $12, there being 50,000 shares in the company. This price is equivalent to $600,000, or 120,000*l.*, for the whole mine, and as it will be ssen that the dividends of this year ($150,000) represent 50 per cent. upon a capital of 60,000*l.*, as proposed under the Champion organisation, it is safe to say that, had the purchase been carried out, with the shown results of the past three years the shares would be selling for twice as much in this market as in that of San Francisco, which would make the property represent a present market value of 240,000*l.*, which, added to 125,000*l.*, the net results for the past four years, would make an aggregate total of 365,000*l.*, which would be over 500 per cent. upon the original proposed investment of 60,000*l.* Well may the subscribers to the proposed Champion Company regret having taken the advice they did.

Emma shares have declined to 1 to 1¼; it has been decided that the petition for winding up the company shall be heard in private. Last Chance, ¾ to 1¼; Tecoma, ½ to ⅝. Utah, ½ to ¾; the adjourned annual meeting was held on Tuesday. A full report will be found in another column. The works having been leased for six months, nothing can be done during that period, but the reports of Prof. Clayton and others say that if the mine is further developed, no doubt good paying ore will be met with. Possibly the directors may arrange to commence again when winter is past.

Hydraulic gold mine shares have been in more request, and a slight advance has taken place in Birdseye Creek and Cedar Creek, Sweetland Creek are firm at quotations. Blue Tent quiet, but unaltered in price.

Cedar Creek, 1½ to 1¾; the annual meeting was held on Thursday. A full account will be found in another column. The directors stated that they had instructed two competent persons to survey the property, whose reports they expected in a few days, when they would be at once forwarded to the members. They also intimated their intention of inviting the shareholders to take up the unissued debentures, and failing to obtain their co-operation to endeavour to make arrangements for their issue elsewhere. The shareholders would do well to take up these debentures, and thus keep the control of their property. Blue Tent, 5 to 5¼; we have no alteration to notice here, all matters are in good order. Birdseye Creek, 2¼ to 2⅜; all operations are progressing as usual, and work on the new tunnel is being pressed with as much speed as possible. Sweetland Creek, 3 to 3¼; Mr. McLean writes that from all he can ascertain he hopes that the ditch connection will be completed by the middle of this month. He is then prepared to recommence washing at once. Gold Run firm, at 10s. to 12s. The 10*l.* debentures are 15s. prem. The tunnel is now progressing satisfactorily with three shifts of men of eight hours each.

Colorado Terrible, 3⅜ to 4; the 54th and 55th shipments—10 tons each—have arrived in Liverpool this week. The 48th and 49th are advertised for sale in Liverpool on the 18th inst., and the 50th and 51st on the 30th inst. It is expected they will fetch the usual price for dressed mineral—80*l.* to 90*l.* per ton. New Pacific, ⅜ to ½; no change from the mine; operations are proceeding as usual. St. John del Rey, 240 to 250; the produce for twelve days in October was 10,500 oits. Don Pedro, ¼ to ½; the estimate for October is 5200 oits. Sierra Buttes, 1¾ to 2¼; the receipts during October from Sierra Buttes were $36,455, against a cost of $20,863*l.*, and from Plumas Eureka $30,970, against a cost of $13,566. London and California, ½ to ¾; the prospects at the Original Amador Mine are reported as very encouraging at first level north of Prospect shaft. Mineral Hill raised during the week ending Oct. 19, 50 tons of ore of an average grade of $40 per ton. The Australian Mines Investment Company have declared a dividend out of the net profit of 1s. per 1*l.* share.

Van, 22½ to 25; the shaft is now down deep enough for another level, and as soon as it is cased and divided a cross-cut will be commenced to cut the lode at the 90. The 75 end west is improved; other parts much the same. The usual sale, 500 tons, will take place next week. Van Consols, 2⅜ to 2⅝; the lead recently discovered in the bottom level driving west from No. 2 winze is a most promising feature, showing as it clearly does that the opinion entertained by the executive that a course of lead would be met with at this depth is on the point of realisation. Bog, ⅛ to ⅜; the great discovery on Whitestone lode still maintains its value—5 tons of lead per fathom. The Chairman has visited the mine, and is so impressed with the value of the discovery that he has issued a circular to the shareholders urging them to co-operate and take up some preference shares, so as to save the property for the present shareholders. It is to be hoped that this appeal will be successful, as it is a pity to see so fine a mine sacrificed. Pennerley, 1¼ to 1⅜; from the report in another column it will be seen that the mine is opening out much better. There are several points of interest to be watched during the next few weeks. Perkins Beach, ⅛ to ⅜; this mine has passed into liquidation. We are informed that some of the shareholders are arranging to buy the property, with a view of giving it a better trial. Penstruthal, ⅛ to ¼; the meeting has been called for Nov. 25, when a satisfactory statement will be submitted.

Subjoined are the closing quotations:—

Carn Brea, 57 to 58; Cook's Kitchen, 9 to 10; Devon Great Consols, 1⅞ to 2⅛; Dolcoath, 47½ to 50; East Caradon, ¾ to 1; East Lovell, 10 to 12; East Van, ½ to 1; Great Laxey, 11 to 12; Hingston Down, 1 to 1½; Marke Valley, ¾ to 1; Pennerley, 1½ to 1¾; Parys Mountain, ¼ to ⅜; Penstruthal, ⅛ to ¼; Roman Gravels, 13 to 14; South Condurrow, 3¼ to 3½; Tincroft, 31 to 32; Tankerville, 6¾ to 7¼; Van, 22½ to 25; Van Consols, 2¼ to 2½; West Basset, 8 to 10; West Chiverton, 1¾ to 2¼; West Tankerville, ⅜ to ⅝; Wheal Grenville, 5 to 5¼; Bog, ⅛ to ⅜; Great West Van, ¾ to 1; Almada and Tirito, ⅜ to ⅝; Blue Tent, 5 to 5¼; Birdseye Creek, 2¼ to 2½; Cedar Creek, 1½ to 1¾; Cape Copper, 28 to 29; Colorado Terrible, 3¾ to 4; Chontales, ⅜ to ⅝; Don Pedro, ⅛ to ⅜; Eberhardt and Aurora, 4½ to 5; Emma, 1 to 1¼; Flagstaff, 1½ to 1¾; Frontino and Bolivia, ⅛ to ¼; Independence, 2¼ to 3¼; Last Chance, ¾ to 1¼; Malpaso, ¾ to 1; Malabar, ⅝ to ¾; New Quebrada, 3 to 3½; New Zealand Kapanga, 2¾ to 3¼; Port Phillip, ⅛ to ¾; Rica, ¼ to ½; Richmond Consolidated, 6¾ to 7¼; Rio Tinto, 1 dis. to par; South Aurora, ⅝ to ¾; Sweetland Creek, 3 to 3½; St. John del Rey, 240 to 250; Sierra Buttes, 1¾ to 2¼; United Mexican, 2¼ to 2¾; Tecoma, ½ to ⅝.

The Scottish Australian Mining Company half-yearly report states that the coal trade of the colony has continued to be well maintained. The company's sales of coal amounted to 66,226 tons for the half-year ending June 30, as against 72,253 tons sold during the corresponding six months of 1873. The net profit realised from the colliery during the six months ending at June 30 amounts to 12,630*l.* 4s. 8d., as shown by the colliery profit and loss account; the necessary disbursements for maintenance and renewal having been made and charged to that account. The price of large coal during the period has been 14s. and of small coal 7s. per ton, less the current discount. The demand for the coal produced by the Australian colonies is steadily increasing.

It is announced that the subscription lists for the issue of 300,000*l.*, the balance of the share capital of the Banbury and Cheltenham Direct Railway Company, will be closed on Tuesday next, the 17th inst. for London, and on Wednesday next, the 11th inst., for the country.

It is announced that the books for the registration of transfers of shares of the Atlantic and Great Western Railroad Company will be closed in New York from Saturday, Nov. 4, to Monday, Dec. 14.

The Erie Railway Company announce that the coupons due on Dec. 1 next on the issue of 3,000,000*l.* Second Consolidated Mortgage Seven per Cent. Sterling Bonds will be paid on and after that date at the London offices of the company.

LEAD ORES.

Date.	Mines.	Tons.	Price per ton.	Purchasers.
Nov. 7	Frank Mills	28	£15 18 6	Nevill, Druce, and Co.
—	ditto	17	11 9 6	ditto
10	Lisburne—E. Logyias.	10	14 10 0	Panther Lead Company.
—	,, —Glogfach	14	19 6 0	Sheldon, Bush, and Co.
—	East Darren	50	18 6 6	Weston, Son, and Co.
—	Cwmystwith	10	13 13 9	Nevill, Druce, and Co.
11	Melindur Valley	25	14 1 6	St. Helen's Smelting Co.
12	Roman Gravels	30	14 14 6	Walker, Parker, and Co.
—	ditto	50	14 16 0	Nevill, Druce, and Co.
—	ditto	50	14 19 6	Burry Port Company.
—	ditto	50	14 17 6	George Burr.
—	ditto	50	14 15 0	ditto
—	Talargoch	65	15 2 6	Walker, Parker, and Co.
—	ditto	75	15 7 6	ditto
—	North Hendre	30	14 17 6	Adam Eyton.
—	ditto	5	16 10 0	ditto
—	Prince Patrick	50	15 7 0	Walker, Parker, and Co.
—	So. Prince Patrick	20	14 18 6	Adam Eyton.
—	ditto	20	14 18 6	Walker, Parker, and Co.
—	Halkyn Deep Level	15	14 18 6	ditto
—	Gorsedd & Celyn Level	10	13 16 6	Adam Eyton.
—	Wagstaff	9½	13 13 0	ditto
—	St. David's	5	14 2 6	ditto
—	Queen	5	14 5 6	Walker, Parker, and Co.
—	South Darren	15	20 18 0	Nevill, Druce, and Co.

BLENDE.

Date.	Mines.	Tons.	Price per ton.	Purchasers.
Nov. 9	Burrow and Butson	120	£ 1 15 0	Villiers Spelter Company

BLACK TIN.

Date.	Mines.	Tons c. q. lb.	Price per ton.	Amount.	Purchasers.
Nov. 7	Wheal Uny	13 10 2 22	—	—	—

Mining Correspondence.

BRITISH MINES.

ABERDAUNANT.—S. Toy, Nov. 11: No. 2 adit, driving east, is producing stones of lead. We are making good progress in rising above this level, and I expect by the end of this week we shall be high enough to drive west and communicate with the old rise; when this is completed we shall soon commence to blast into the north and productive part of the lode. No. 4 stope, over this level, is worth 13*l.* per cubic fathom for lead.

ABERYSTWITH.—Capt. J. Trevethan, Nov. 6: The east end at the 86 is still very hard; the lode is 4 fms. wide, and every part of it is thickly spotted with lead ore. The west end is also harder, and contains stones of lead ore. The tribute pitch looks well, and the men are earning 20s. a week.

AMNODD AND NANTDDU.—John Kemp, Nov. 12: I am glad to say that the engine-shaft is going down in very congenial ground; indeed, it has become much more settled, containing some nice carbonate of lime, and this last week we have found some nice lumps of solid lead in the open joints, which I think speaks well for the intersection of the lode. The weather, so far, is very favourable, and the machinery is working well.

BEDFORD UNITED.—W. Phillips, Nov. 12: Operations are by the side of the lode generally in the levels, and the stopes continue to look much the same as for some time past. The lode in the rise in the back of the 47 fm. level east is looking more kindly.

BELSTONE.—J. Neill, Nov. 7: A. Shaft: The character of the ground is much the same as for some time past; we have now in the western end of shaft a small branch of garnet and hornblende, thickly interspersed with yellow ore and arsenical mundic. This looks well for the lodes in depth. Sunk this week 1 ft. 9 in.; total depth, 75 fms. 1 ft.—C. Shaft: The stope in the rise in the back of the intermediate level is equally as productive as for some weeks past; the ground is very favourable for working and congenial for mineral.

BOG.—W. T. Harris, J. Barkell, Nov. 11: The improvement reported last week in the 175, driving west on the Whitestone lode, is as good as ever, worth fully 5 tons of lead ore per fathom; this run of ore is west of anything we have discovered before in this level, and is going up in whole ground, the levels above not having been driven sufficiently forward to discover the ore. The tribute pitches throughout the mine are producing about their usual quantities of lead and blende, and the tributers are earning fair wages at their respective prices.

BRONFLOYD.—J. Davis, Nov. 11: Settings for November—No. 2 Shaft: The cross-cut north-west of shaft, at the 40, to intersect middle lode, to four men, at 100s. per fathom.—No. 3 Shaft: Driving on the middle lode eastward from Lloyd's cross-cut, to four men, at 180s. per fathom; the end here is in a very strong lode, with a small leader of lead ore on the hanging wall; the lode is about 4 fathoms in width, and when we have extended it a few fathoms further we shall cross-cut to prove it on the other side. Driving the 73 eastward, to four men, at 180s. per fathom; most of the lode here is standing on the south of level, and we cannot ascertain the full value of it until it is taken down; the value of the lode in the present end is from 10 to 12 cwts. per fathom; this is a new setting, and will be begun to-morrow. Stoping the backs of the 96, west of shaft. No. 1 stope, to six men, at 90s. per cubic fathom. No. 2 stope, to six men, at the same price. There is a fine course of ore extending the whole length of these stopes of the average value of 2 tons of lead ore per fathom. The masons have made good progress with the walling up of the collar of No. 2 shaft, and I expect them to finish it in the course of four or five days from to-day.

BURROW AND BUTSON (St. Agnes).—J. Christophers, James Mayne, Henry Von Uster, F.G.S., Nov. 7: The lode in the end going east at the 62 fm. level is fully 6 ft. wide, underlying about 3 ft. in a fathom, carrying a little flookan, and composed of genial quartz, considerable quantity of mundic with spots of rich copper, and part of the lode more promising for lead. In the 50, driving west, the lode is 3 ft. wide, with spots of iron pyrites, and about 6 in. of flookan. The stope in the back of the 40 fm. level is fully 5 ft. wide, composed of blende, copper, mundic, and quartz, worth over 2 tons per fathom for blende and copper. In the 30, east of Tonkin's shaft, driving east on the north or lead lode, the lode (a very promising one) is 2½ ft. wide, worth for blende 1 ton per fathom, with spots of lead, showing that we are fast getting under the course of lead gone through at the 20 fm. level. The stope in the back of the 30 is worth 3 tons of blende per fm., with good stones of lead in it. The stope in the back of the 20, west of Tonkin's, is worth 2 tons of blende per fathom. In the 20, driving west of Tonkin's, the lode is wider than the end, and worth 5 tons of blende per lineal fathom of drivage, with stones of lead in it; this is a very promising lode, being all in whole ground to adit.

Western Mine: According to information obtained from respectable miners who were working with tributers round William's shaft about 80 fathoms west of our main engine-shaft, where a north-west and south-east caunter intersects the great gossan lode. Large quantities of ore were raised at a low tribute at and above the adit level, and under it as far as they could go for water. This is strongly confirmed by the large excavations seen about and above the adit, and by the nature of the ground seen at surface on the burrow. As we have ample steam-power to work this part of our mines, and had, moreover, nearly all the necessary pitwork on hand. We have prepared to clear up William's shaft, which appears from the east and west section sunk only 10 fathoms under the adit level into unbroken ground. The pitwork was moved this week, and is in its place so far as was necessary for the present, and the flat-rods connecting the same with the balance-bob of our 60-in. cylinder-engine went to work yesterday in good style.

— John Christophers, Nov. 11: There is nothing new since the report of the 7th instant. All is progressing well, including the clearing of William's shaft, where we hope soon to see the intersection of the caunter and great gossan lodes.

CAEGYNON.—Thos. Hodge, Nov. 9: In the 70 east end we have reached the point of horse, and the end is now all in lodestuff. We are carrying about 2½ ft. of the north lode, which is yielding some strong spots of lead ore. We are also carrying about 2½ ft. of the south lode, which is also looking very promising, yielding some very good stones of blende, interspersed with spots of lead ore. The main ore bearing parts of the lodes are standing in the sides, the value of which I hope soon to prove. The rise in the back of the 60 is communicated with Jenkins' winze, and the men are now placed to stope a piece of ground to the west, and in the bottom of the 50, where the lode will about pay for stoping.

— T. Hodge, Nov. 11: In cutting out ground below the 50 I hope to get enough lead and blende by the end of December to pay nearly one month's cost—say, 90*l.* worth. Anything new of importance will be duly advised.

COURT GRANGE.—E. Dunkin, Nov. 12: I expected to have had to report that the 40 fm. level was dropped from the depth we had attained when I reported last week; however, it is not so, though the engine has been working regularly and pumping well. The excavations between the 31 and the 40 must be extensive. The lode in the 16 east is of the same value—11*l.* per fathom. After this week we must suspend this point for a few days until we can take away the stuff. I shall put the men belonging there to try another part further west. There is no perceptible change in New Broginan shaft. Our surface works are nearly completed, and I hope in a few days to be drawing from the 16 and the 31, when we may consider the mine well equipped, with appliances necessary for its full development.

CRENVER AND WHEAL ABRAHAM UNITED.—W. Thomas, J. Hammill, Nov. 11: Setting Report: Sturt's Engine-Shaft: The 228 to drive west by eight men, the month, at 17*l.* per fm.; the lode in the end is 3 ft. wide, producing 1 ton of copper ore per fathom; a branch has fallen into the lode at this point, which has greatly improved the character of the lode. We have put the four men who were driving east to take down the side of the level in order to prove this branch or lode, which will now yield 1 ton of copper ore per fathom. To sink a winze in the bottom of the 215 by six men, the month, at 15*l.* 10s. per fathom: the lode is 2 ft. wide, yielding 1 ton of copper ore per fathom; we think this lode will again shortly improve. To drive the 215, west of shaft, by eight men, the month, at 17*l.* per fathom; the lode is 3 ft. wide, producing 1½ ton of copper ore per fm.; this end has improved and is letting out more water, which we hope will facilitate the sinking of St. George's shaft, which is of very great importance. To drive the 200 east by two men and two boys, the month, at 14*l.* per fathom; the lode in the end is 1½ ft. wide, yielding a little copper ore.—Crenver Shaft: To rise in the back of the 140, east of shaft and west of rise, by three men and three boys, the month, at 7*l.* per fathom; the lode is 1½ ft. wide, producing stamping work for tin.—Bull's Shaft: To sink below the 180 by six men, the month, at 15*l.* per fathom; the lode is 1½ ft. wide, and yields occasionally a little copper ore; the shaft is now down about 5½ fms. below the level.—St. George's Shaft: To sink this shaft below the 203 by nine men, the month, at 20*l.* per fathom; the lode is 2½ ft. wide, producing copper ore to dress, now down about 7 fms. below the level. To drive the 203 east, on the south lode, and west of shaft, by four men, the month, at 11*l.* per fathom; the lode is 1 ft. wide, and yields a little copper ore. To drive the 190, east of shaft, the month, by six men, at 11*l.* per fathom; the lode is 1 ft. wide, having a very kindly appearance, and judging from the dip of the ore in the winze we may reasonably expect an improvement here shortly. To drive the 180, east on the south lode, and west of shaft, by four men, the month, at 8*l.* per fathom; the lode is 1½ ft. wide, yielding a little copper ore.—Woolf's Shaft: To sink this shaft below the 208 by nine men, two months, at 32*l.* per fathom; the lode is 4½ ft. wide, producing 1¼ ton of copper ore per fathom; the shaft is now down about 8 fms. 1 ft. below the level; we expect this shaft to be sunk 11½ fms. before the take expires. To drive the 208 west by two men and two boys, the month, at 12*l.* per fm.; we have not yet intersected to the west of the cross-course. To drive the 120 fm. level cross-cut, south of shaft, by four men, the month, at 12*l.* 10s. per fathom; the ground is still of the same character as for some time past.—Vivian's Shaft: To drive the 220 east by eight men, the month, at 12*l.* 10s. per fathom; the lode is 2 ft. wide, yielding a little copper ore, and from appearances we think this end will shortly improve.—Pelly's Shaft: To drive the 248 west by eight men, the month, at 20*l.* per fathom; the lode is 2 ft. wide, and yields a little copper ore, and some good stones of tin. To drive the 248, east of shaft, by six men, the month, at 18*l.* per fathom; the lode is 1¼ ft. wide, occasionally producing stones of copper ore. To drive the 234 east by six men, the month, at 13*l.* 10s. per fathom; the lode is 1 ft. wide, composed principally of spar. To drive the 248, east of the winze, in the bottom of the 234 by six men, the month, at 20*l.* per fathom; the lode is 5 ft. wide, and yields tinstuff to stamp, and a little copper ore.—Blewitt's Shaft: To drive the 234, west of shaft, by six men, the month, at 7*l.* 10s. per fathom; the lode here is a little disordered. To rise in the back of the 220, against Richards's shaft, by eight men, the month, at 14*l.* per fathom; the lode is 4½ ft. wide, and yields 2 tons of copper ore per fathom.

Richards's Shaft: To sink below the 210, by six men, the month or hole, at 11*l.* per fathom; the lode is 4½ ft. wide, and will yield 1½ ton of copper ore; we hope to get a communication to the 220 this month. To drive the 210, west of shaft, by six men, the month, at 8*l.* 10s. per fathom; the lode is 4 ft. wide, yielding 1½ ton of copper ore per fathom. To sink a winze below the 200, west of shaft, by six men, the month, at 10*l.* per fathom; the lode is 5 ft. wide, and produces 1¼ ton of copper ore per fathom. To drive the 200 west, by six men, the month, at 7*l.* 10s. per fathom; the lode is 3½ ft. wide, and will yield 2 tons of copper ore per fm.; this end is now within 3 fms. of being under Willyam's shaft. To rise No. 1 rise in the back of the 170, west of shaft, by six men, the month, at 7*l.* per fathom; the lode is 4 ft. wide, yielding good stones of copper ore. We have suspended the driving of the 140 for the present (the end being now being now beyond Wilyam's shaft), and the men are putting a footway in the same below the 90. We think our next sampling will be about 550 tons of copper ore. There are employed this week on tutwork, 170 men and boys; on tribute, 88 ditto; at surface, 56 ditto: total, 314 men and boys.

CWM DWYFOR.—J. Jewell, Nov. 12: The part of the lode that is being carried in the No. 1 level, driving east of the north cross-cut, is looking better for copper ore—a fine looking lode. We shall lose no time in getting this level communicated with the little shaft sunk from surface on this lode, and where the lode will yield lead and copper ores in paying quantities. The lode in No. 1 level, driving east of the south cross-cut, has improved for lead. We have met with a vugh in the lead-bearing portion of the lode, which produces good lumps of lead, copper ore, &c., and looks promising for further improvement. With reference to the vertical slide observable in the open cutting on this lode, and which we are expecting to meet with in the level shortly, I would say upon my own practical experience, and that of the oldest miners here, that the powerful influence for good which these slides have upon the lodes in the district is surprising, and they have never been known to fail in making large deposits of rich lead and copper ores, and the rich neighbouring mines bear testimony to that effect. The characteristics of the stratum and the slide are, in my opinion, everything that can be desired.

DE BROKE.—T. Hodge and Son, Nov. 9: Wilson's shaft is going down with fair speed. The rise in the back of the 25, west of the junction, on the main lode, is looking well, worth for length of rise 3½ tons of lead ore per fathom. The stopes east and west of No. 2 shaft have not improved since our last; the present yield will about pay for stoping. We are making good progress in the adit cross-cut south towards Wilson's shaft, and hope to have it forth by the time the shaft gets down. Dressing is being urged on with all energy for our next sampling. The machinery thsoughout the mine is in good order, and working well. Our last parcel of ore will be shipped in the next boat for Bristol.

DEERPARK.—John Goldsworthy, John Bucknell, Nov. 7: The cross-cut driving south from the bottom of the shaft is extended 9 ft.; the stratum is a compact clay-slate, interspersed with veins of capel and quartz; in the furthest point the water is flowing very strongly. We look forward on reaching the lode to meet with good results. Every effort is being brought to bear on this most important point. We regard the perpendicular bearing of the lode as being very favourable indeed. The machinery is in good order, and works well.

DENBIGHSHIRE CONSOLIDATED.—J. Pryor, Nov. 12: In the 112, driving east of the engine-shaft, the appearance of the end to-day is highly promising, and of such a nature not seen before. Apparently there are two distinct lodes in the forebreast. No. 1, on the footwall, is composed of shale, carrying a rib of steel ore about 2 in. wide. No. 2 on the hanging side is bearing 16° more east than the original vein, on which we have been driving for so long a period; this latter looks the more favourable for continuing productive, but the change throws quite a new feature upon the eastern workings, which will before long prove very valuable. In the back of the level we have a rib of ore nearly 8 in. wide, solid, and the lode itself is nearly 7 ft. across. In the 112 west we are arriving at the point of junction, when reached our success will be thoroughly established. In sinking below the 66 west we find a good charactered lode, worth ½ to ¾ ton of lead per fathom.—Junction Shaft: The sinking is being carried down with all the speed we can possibly bring to bear upon it, but the ground is hard for progress.—Dressing Floor: We are proceeding fairly with our operations in this department. Machinery and pitwork working well, and water easy.

DYLIFFE.—Edward Evans, Edward Rogers, Nov. 7: Dyliffe Lode: The cross-cut at the 120 is driven 23 fms. 3 ft. 3 in. north of boundary shaft; contract to cut the lode, by six men, at 7*l.* 15s. per fathom; the ground is hard, and the progress, consequently, slow. The 60 end is suspended, and a stope in the back of the level set to six men and one boy, at 4*l.* 10s. per fathom; we will name its value as soon as it can be ascertained. At the 40 driving east of boundary shaft there is an improvement, the lode being worth 15*l.* per fathom, and is driven by six men, at 6*l.* 12s. per fathom. The 15 is driving by six men, at 6*l.* 5s. per fathom; the lode at the present time is unproductive.—Esgairgaled Lode: At the 45 we are stoping the back by six men, at 1*l.* 15s. per fathom; the lode is gradually improving as we get towards the rich ground gone down in the bottom of the 35. In the tribute department there are six men employed at 5*l.* per ton, five men at 5*l.* 5s., and twenty men at 5*l.* 10s. per ton.

EAST DARREN.—Nov. 9: Skinner's shaft, sinking under the 116 fm. level (now down 2 fms.), is in ground chiefly composed of dark clay-slate and hard beds of grit, and progress slow. In the pitch over the 116, 140 fms. east of Taylor's shaft, the lode is 4 ft. wide, yielding 10 cwts. of lead ore per fathom. In the pitch over the same, 120 fms. east of Taylor's shaft, the lode is 5 ft. wide, yielding 1 ton of lead ore per fathom. In the pitch under the 104, 80 fms. east of Taylor's shaft, the lode is 1 yard wide, yielding 15 cwts. of lead ore per fathom. In the winze sinking under the 104 fm. level the men are engaged in cutting plat. In the pitch over the 104, 160 fms. east of Taylor's shaft, the lode is 3 ft. wide, yielding 12 cwts. of ore per fathom. In the pitch over the same, 140 fms. east of Taylor's shaft, the lode is 4 ft. wide, yielding 15 cwts. of lead ore per fathom. In the pitch over the 104, 100 fms. east of Taylor's shaft, the lode is 5 ft. wide, yielding 1¼ ton of ore per fathom. In the 92 east, on north part of lode, the lode is 2 ft. wide, not looking quite as well, now yielding 10 cwts. of lead ore per fathom. In the pitch over the same the lode is 3 ft. wide, yielding 1½ ton of lead ore per fathom. In the pitch over the 92, 150 fms. east of Taylor's shaft, the lode is small and yielding 8 cwts. of ore per fathom. In the stope under the 80 the lode is 1 yard wide, yielding 15 cwts. of lead ore per fathom In the pitch over the 80, 165 fms. east of Taylor's shaft, the lode is large, yielding 1 ton of lead ore per fathom. In the pitch over the same, 140 fms. east of Taylor's shaft, the lode is large, though much fallen off in value; now yielding from 12 to 15 cwts. of lead ore per fathom. In the two pitches over the same, 100 and 120 fms. east of Taylor's shaft, the lode, on an average, is 4 ft. wide, yielding 15 cwts. of lead ore per fathom. Our machinery is in good order. Drawing and dressing are progressing regularly, preparing ore for our next sampling on Tuesday, the 24th inst.

EAST WHEAL BASSET.—R. Pryor and Son, E. Adams, Nov. 9: In the tutwork bargains throughout this mine there has been no change worthy of remark since our last report, but the tribute department has materially improved. We have, therefore, been enabled to set two more tribute pitches. We are making good progress towards another sampling, which will consist of some good-quality copper ore. Our present prospects of success we consider to be of an exceptionally good character.

EAST WHEAL GRENVILLE.—E. Hosking, Wm. Bennetts, Nov. 7: Setting Report: To drive the 130, west of the engine-shaft, by six men, at 8*l.* per fathom; the lode is 18 in. wide, and worth 6*l.* per fathom. To drive the 120 cross-cut, north of the engine lode, by two men and one boy, at 7*l.* per fathom. To sink a winze below the 120, west of the engine-shaft, by four men, at 6*l.* per fathom; the lode is 2½ ft. wide, and worth 5*l.* per fathom. To rise above the 130 west, by two men, at 7*l.* per fathom; the lode is worth 5*l.* per fathom. To rise above the 110, east of the engine-shaft, by six men, at 5*l.* per fathom; the lode is 18 in. wide, and will produce 1 ton of copper ore per fathom. To drive the 110 cross-cut, south of the engine lode, by four men, at 5*l.* per fathom. To stope below the 95, east of cross-course, by two men, at 3*l.* 10s. per fathom; the lode is 2 ft. wide, and worth for tin and copper ores 7*l.* per fathom.

EAST WHEAL GRENVILLE.—E. Hosking, W. Bennetts, Nov. 12: There is no change since our setting report.

EAST WHEAL LOVELL.—R. Quentrall, Nov. 11: Fatwork: As mentioned in the report at the meeting the tin ground has taken a more westernly dip, and we have been sinking further west, where the lode is from 10 to 12 ft. wide, producing some rich work for tin, and improving as we sink.—Tregonebris: In the 34, driving east of new engine-shaft, the lode is looking very well, and worth from 25*l.* to 30*l.* per fathom. We have holed the adit to the old workings westward, and as far as seen the lode is taken away to the water level. The former workers must evidently have had a large quantity of tin here, and we shall continue the adit westward to take up the water and clean up the old workings as soon as possible.

FLORENCE CONSOLS (Tin).—P. Skewis, Nov. 10: We have had to suspend working at the Chiverton shaft as the water from the heavy rains was rising into the 15 fm. level from surface, but we have an old level at the 40 extending to within 23 fms. of where we were at work at Chiverton, and we think this will pay us to drive it on under the Chiverton 15 fm. level, and are now pushing this forward fast so as to drain it; this will give us good backs for stoping. As the ends at Chiverton are worth about 28 lbs. of tin to the ton of the lode, which is about 3 feet wide, we are still picking out good stones of tin, and have put the men to break more of the tin that is in the bottom of the 66, from which we have had such splendid samples. The ends down to the Trevain Mine are looking very good for tin. The shaftmen have made a beginning to sink Eliza's shaft to the 86 from the 76, which we shall push on with all speed. The north end at the 40 is looking very kindly for tin. Machinery in good order, and everything else looking favourably.

FURZE HILL.—W. Doidge, Nov. 12: No. 1 North Lode: In clearing the midway level south, on the cross-course, we have reached the end of the ancient workings in this direction, but no lode has been met with. I am inclined to think that it does not make home to the cross-course, and that the ancients did not find it in this level on the eastern side. The intersection is very nearly at right angles, and, judging from the displacements in other parts of the mine with similar bearings, the lode ought to be hove but very little, if anything, out of its regular course. We are now driving east at the point of intersection, and as soon as we get into firm ground intend cross-cutting south if the lode is not previously found. The lode in the back of the midway level is not looking quite so well as formerly reported; it makes in floors, and, no doubt, will improve again shortly. The stope in the back of the 54 is worth 4*l.* per fathom.—Middle Lode: In the 54 east we are driving by the side of the lode, which will be taken down and reported on in my next. The stopes in the back of this level are worth 7*l.* per fathom. Our regular four-weeks sampling will take place next week—computed 4 tons.

GAWTON COPPER.—George Rowe, George Rowe, jun., Nov. 7: The north part of the lode carried in the 117, east of King's shaft, is 4 ft. wide, impregnated with spar, mundic, and good quality copper ore, altogether of a very kindly appearance. The 117, west of shaft, is being continued by the side of the lode in ground of a good description for minerals. The lode in the stopes in back of the 95 is worth 6*l.* per fathom. The lode in the stopes in the bottom of the 82 is worth 12*l.* per fathom. The lode in the stopes in the bottom of the 70 is worth 7*l.* per fathom. The lode in the rise and stopes in the back of the 70 is worth 10*l.* per fathom All other points are without change.

GOGINAN AND LEVEL NEWYDD.—Nov. 9: The 100 east has been extended during the past month 3 fms. 3 ft., on a lode from 3 to 5 ft. wide, producing stones of lead and copper at times, but of no material value. Lode in present end harder, containing strings of lead ore, and looks promising for an improvement; set to six men, at 7*l.* 10s. per fathom. We hope to be able to commence a rise over this level against Bryn Pica shaft in the course of a fortnight or three weeks time. Bryn Pica shaft has been sunk 2 fms. 2 ft. 3 in.; ground hard for exploring. Better progress would have been made here during the past month had we not been obliged to take the men to repair and timber the shaft above the 80. This is now completed, and the shaft again in a good course of sinking by nine men; set at 20*l.* per fathom. The western shaft below the 80 has been deepened, timbered, and secured 2 fms. 4 ft. 6 in. This point is set to six men, at 13*l.* 10s. per fathom, and fair progress now being made. We have four men sinking below the 100 in a line with this shaft, where the lode is worth 12 cwts. of ore per fathom, and we hope to get two more here in a few days. There are four tribute pitches in the old part of the mine, set to five men in each, at 145s., 140s., 210s., and 220s. per ton respectively; lode worth from 12 to 14 cwts. of lead ore per fathom. The new launder or outlet has been put in all right at Fossett's Pond, which is a good job, and it is now secure. Surface operations are being proceeded with regularly. Our last parcel of ore realised 18*l.* 18s. per ton.

GORSEDD AND CELYN LEVEL.—W. Edwards, Nov. 12: In our various operations we have no particular alteration to notice. Since my last the indications of our approach to the Merllyn vein are precisely the same. At to-day's ticketing we sold 10 tons of lead ore.

GREAT RETALLACK.—J. Harris, Nov. 7: The lode in the 40 east has further improved for blende since I last reported; it is now producing fully 2 tons per fathom, and is a very pretty looking lode.

GUNNISLAKE (Clitters).—W. Skewis, J. C. Seccombe, Nov. 10: We have intersected the lode in the 176, which is worth 30*l.* per fathom as far as seen, with every appearance of a further improvement, as the ends are extended east and west. This point looks well for the future of the mine. The lode in the 164 east is poor. In this level west the lode is 2 ft. wide, composed of spar, peach, and copper ore, worth 6*l.* per fathom. The lode in the rise in back of this level is worth 8*l.* per fathom. The lode in the stopes in back of the 164 is worth as follows:—No. 1 stope, 18*l.* per fathom, and No. 2, 15*l.* per fathom. The lode in the stope in bottom of the 140, east of engine-shaft, is worth 6*l.* per fathom. The lode in the 140 west is worth 8*l.* per fathom, and looking very promising for improvement. The two stopes in back of the 140 are worth 9*l.* and 15*l.* per fathom. The lode in the 128 west is looking very promising, and producing saving work for copper ore. In the 116 west we have intersected the lode west of the cross-course, which is 1½ ft. wide, and worth 7*l.* per fathom. We think, as we get off from the cross-course the lode will make larger and become more productive. We sampled on Oct. 30, computed, 195 tons of very good quality copper ore.

HINGSTON DOWN CONSOLS.—J. Richards, Nov. 12: Bailey's Shaft: In the 150 west the lode is 4 ft. wide, composed of mundic, capel, quartz, peach, and a little of both copper and tin ores. In the 150 west, east of Cocking's winze, on the north part of the lode, the lode is 4 ft. wide, and is improved, being at present worth fully 20*l.* per fathom. In the rise in the back of the 140 west, against Fitze's winze, fair progress is being made. In the three stopes in the back of the 140 west the lode continues worth on an average 25*l.* per fathom. In the 120 west there is no alteration, the lode being still 3 ft. wide, composed of capel, peach, mundic, and a little copper ore. The lode in the stope in the bottom of the 120 west is worth 20*l.* per fathom. In Brewer's winze, sinking below the 110 west, the lode is 3½ ft. wide, and worth 15*l.* per fathom. In the 110 west the lode is 4 ft. wide, and improved, being at present worth fully 30*l.* per fathom, with most promising indications of a further improvement. The lode in the stope in the bottom of the 110 west is worth 10*l.* per fathom.

— Telegram.—Jas. Richards, Nov. 12: There has been an important improvement in the 110 west, a fine lode, worth 30*l.* per fathom, and promising further improvement. The 150, east of the winze, has also improved, and is now worth 20*l.* per fathom, and most promising.

ILLOGAN.—Rd. Pryor and Son, Nov. 10: Within the past week there has been but little change in any of the underground operations throughout this mine. Friday next being our pay and setting day, a full report shall follow.

KINGSTON VALLEY.—G. F. Richards, Nov. 12: In driving the 18 fm. level west very good progress has been made. The lode, however, has been disturbed by sliding ground, but beyond the influence of which it will now to all appearance soon begin to pass. The lode is exceedingly large, composed of gossan, capel, quartz, sulphur mundic, and a proportion of galena and carbonate of lead—altogether of a highly promising character. The lode in the rise in the back of the 18 is still very large, and continues to yield 1 ton of silver-lead ore per fathom. The lode in the winze sinking below the adit level is very large, comprised chiefly of fine capel, quartz, sulphur-mundic, copper pyrites, carbonate of lead, and lead ore (galena), producing of the latter fully 10 cwts. per fathom. The two latter points will also produce a large quantity of rich blende ore per fathom. The prospects of the mine altogether are exceedingly good.

LADYWELL.—A. Waters, Nov. 12: Setting Report: The winze below the 16, near south end, on caunter lode, by four men, at 2*l.* per fm.; worth 2 tons of lead ore per fathom. The adit level north and south of cross-cut, on caunter lode, by four men, at 2*l.* per fathom. The stope in the 16, north of winze, north of shaft, on caunter lode, by four men, at 4*l.* 10s. per fathom; worth 2 tons per fathom. The engine-shaft to sink below the 16, by nine men, at 18*l.* per fathom; we have just cut into a big spar lode here and a lot of water, but not seen enough of the lode to report upon it.—Main Lode: The 16, to drive north-west on spar lode, by two men, at 5*l.* per fathom; lode worth 2 tons per fathom. The 16 north, on soft lode, by two men, at 4*l.* per fathom; yielding stones of ore. The 32 to drive north shaft, by six men, at 12*l.* per fathom, 2 fms. stent; lode 5 ft. wide, with spar and spots of ore, looking kindly. This end is 8 fms. short of the run of lead seen in the 16, but we feel certain that the 32 will be an improvement on the 16. Surface work going on fairly.

NEW CONSOLS.—R. Pryor, T. Jenkin, Henry Vial, Nov. 9: There has been no change in Phillips's engine-shaft since our last report. The north lode has been cut in the western end; it is from 3 to 4 ft. wide, producing good-quality stuff for tin and arsenic. At Broadgate the carpenters are making the balance-bob, which will be ready by the time the masons have completed the bob-stand. Excellent progress has been made in all our surface operations during the past week. Saturday next being our pay and setting day a full report shall follow.

NEW PEMBROKE.—Francis Puckey, Chas. Merrett, Nov. 10: The shaftmen are engaged cutting the plat at the 120 and putting down the skip-road to that level. In the 110 end, driving east of the shaft, the lode is 3 ft. wide, presenting a very promising appearance, and worth for tin and copper 12*l.* per fathom. In No. 1 stope, in the back of the 110, east of the shaft, the lode is 3 ft. wide, and worth 9*l.* per fathom. In the No. 2 stope the lode is 4 ft. wide, and worth 10*l.* per fathom. In No. 3 stope the lode is 4 ft. wide, and worth 8*l.* per fathom. In the 100 end, driving east of the shaft, the lode is 4 ft. wide, and worth 8*l.* per fathom. In No. 1 stope, in the back of the 100, east of the shaft, the lode is 3 ft. wide, and worth 12*l.* per fm. In No. 2 stope the lode is 6 ft. wide, and worth 22*l.* per fm. In the No. 3 stope the lode is 2½ ft. wide, and worth 10*l.* per fathom. In the No. 4 stope the lode and branches for 6 ft. wide, are worth 25*l.* per fathom. In the 90 end, driving east of the shaft, the lode is 2 feet wide, presenting a kindly appearance for an early improvement, and more water issuing from the end. In No. 1 stope, in the back of the 90, east of the shaft, the lode is 4 ft wide, and worth 14*l.* per fathom. In the No. 2 stope, west of the winze, the lode is about 3 ft. wide, and worth 50*l.* per fathom for copper ore. In No. 3 stope, east of the winze, the lode is 3 ft. wide, and worth for tin and copper 10*l.* per fathom. In the stope in bottom of the 60 fm. level, on the south lode, the lode is 3 ft. wide, and worth 6*l.* per fathom. On Saturday last (our setting-day) we set 5 cross-cuts to drive at different levels to intersect other lodes, and which we hope will be attended with gratifying results.

NEW ROSEWARNE.—E. Hosking, W. Bennetts, Nov. 7: The lode in the 67, west of Pool's shaft, is 3 ft. wide, composed of peach, quartz, mundic, and a little tin. The lode in the rise above the 58, west of Pool's shaft, is looking kindly, and is worth 7*l.* per fathom. The winze below the 46, west of Pool's shaft, is yielding a little copper ore and saving work for tin.

NEW SOUTH MERLLYN.—R. Rowlands, Nov. 12: We have a rib of spar about 10 in. wide coming in in the back of the level, which promises well for a favourable change in the ground. I have placed two men to rise in the roof of the level to strip the lead down; also two on tribute.

NORTH HENDRE.—J. Lean, Nov. 12: The ground in the north level is at present in a disordered state, and the lode does not produce so much lead as when last reported on. We shall push on to get through this ground, when I have not the least doubt the lode will resume its former productiveness. In the south level no particular change has taken place; the lode is exceedingly strong and masterly, producing 2 tons of lead per fathom. We have driven about 9 yards west on the discovery at No. 1 east level; the lode is now worth 1½ ton per fathom. The trial level going out of No. 2 east has been extended 8 yds. 1 ft. 6 in. The yield of ore from this point has been rather irregular, sometimes producing as much as 3 tons 10 cwts. per fathom; its bearing is 45° west of south, therefore we have a good piece of unexplored virgin ground before us, and the end will now turn out 2 tons of lead per fathom. Opposite to where this level strikes out we have an other trial going on, and are getting some good lumps of ore; but as we have only driven 2 yards we cannot give a definite opinion of what it will eventually lead to. The lode in the No. 2 west level continues rather small and poor, but today another small cavity made its appearance, lined with solid lead; therefore we expect a favourable change will soon take place. The stopes and other points continue much the same as for some time past. To-day we have sold 30 tons of small ore, at 14*l.* 17s. 6d. per ton, and 5 tons at 16*l.* 10s. per ton.

NORTH POOL.—W. C. Vivian, F. Clymo, Nov. 12: The rock has become easier for driving through in the 40 cross-cut. There is a great deal of green sediment on the faces of the rock, and the rock itself is very green, whilst containing a surprising quantity of blende enclosing rich specks of copper ore and arsenical pyrites. We are expecting every day to cut into the lode.

NORTH PRINCE PATRICK.—John Jones, Nov. 12: The ground in the level driving west along the Silver Rake vein, from the eastern shaft, continues to improve gradually; the water is still oozing from the forebreast, with strong indications of a favourable change. Our engine for the western shaft has not yet arrived, but I expect it shortly.

NORTH TRESKERBY.—Richard Pryor, Nov. 10: There has not been any change in the cross-cut driving north of new shaft, at the deep adit, since our setting-report of last week. The tributers on the copper, as well as those on the tin lodes, are breaking some good ores. We shall soon have a parcel of copper ore as well as tin for sale.

OLD BOTTLE HILL.—R. Unsworth, Nov. 11: The following bargains were set on Saturday: The 46, east of Rowe's shaft, on Bucking-house lode, to six men, at 110s. per fathom. The winze in the bottom of the 36, east of Rowe's shaft, to three men, stent 1 fm., at 90s. per fathom. Tribute pitches' time not out. In the 46, east of Rowe's shaft, the lode is 15 in. wide, producing saving work for copper. In the winze in the bottom of the 36, east of Rowe's shaft, no lode has been taken down. The tributers are busy preparing another parcel of tin, which we shall sell in the early part of next month.

OLD TINCROFT CONSOLS.—Jas. Pope, Nov. 11: The lode in the 30, west of Dymond's shaft, is 2 ft. wide, producing tinstone of average quality. In the 20 west the lode is 15 in. wide, producing saving work for tin. In the 10 west the lode is 2 ft. wide, producing average quality tinstone. In the adit east the south lode is 6 in. wide, producing saving work for tin. As soon as we have stamping power, and open more ground in the different levels, we shall be in a position to make regular returns of tin.

OLD TREBURGETT.—W. Hancock, W. T. Bryant, Nov. 11: Setting Report: The engine-shaft to sink 9 ft. below the 90, cut cistern-plat, fix lift, and all other work connected therewith preparatory to sinking the shaft, by nine men, per bargain of 55*l.*, if completed in five and a-half weeks 60*l.* The 90 to drive south, by six men, the month, at 7*l.* per fathom. To drive north, by four men, the month, at 8*l.* 10s. per fathom; the lode in each end is producing stones of silver-lead. The 80 to drive south, by six men, the month, at 7*l.* 10s. per fathom, worth 8*l.* per fathom. No. 1 stope, in back of this level, finished. No. 2 contract not out, worth 15*l.* per fathom. No. 3 stope, by three men, the month, at 3*l.* per fathom, worth 9*l.* per fathom. No. 4 stope, by four men, the month, at 3*l.* per fathom, worth 6*l.* per fathom. No. 5 stope, by four men, the month, at 3*l.* per fathom, worth 7*l.* per fathom. The 70 south contract not out, worth about 10*l.* per fathom; ground very much improved for driving. No. 1 stope, in back of the level, by six men, two months, at 4*l.* 15s. per fathom, worth 14*l.* per fathom. No. 3 stope, by three men, the month, at 4*l.* per fathom, worth 7*l.* per fathom. No. 2 winze to sink to make it the required depth for the 80, by two men, at 9*l.* 10s. per fathom, worth about 10*l.* per fathom. In the 70 north the men are taking down the lode, worth 12*l.* per fathom. The rise and stope in back of this level contract not out, worth about 10*l.* per fathom; the air is bad, and we shall to-morrow try to put a pair of men to sink the winze over again. The 60 to drive south on the lode, by four men, the month, at 7*l.* per fathom, worth 7*l.* per fathom. No. 1 stope, in back of the level, by four men; this stope makes so many branches going off in the sides we prefer working it by day work to save all the ore, worth 15*l.* per fathom. No. 2 stope, by four men, two months, at 3*l.* 10s. per fathom, worth 7*l.* per fathom. No. 3 stope, by four men, the month, at 6*l.* 10s. per fathom, worth 10*l.* per fathom. The stope in the bottom of the level, by six men, the month, at 5*l.* per fathom, worth 13*l.* per fathom. The cross-cut west in this level contract not out. In the cross-cut east we have just intersected a branch, and shall cut through it to ascertain its bearing before setting it again. The tributers, landers, fillers, and trammers' contracts not out this time.

PARYS MOUNTAIN.—T. Mitchell, Nov. 12: There is no change of any importance here this week. The precipitation pits seem to work very well. We have a good stock of old iron, and since the late rains an increased quantity of water.

PEDN-AN-DREA UNITED.—W. Tregay, W. Prideaux, J. Pope, Nov. 7: Sump: In the 160 west end we are not yet clear of the cross-course. The branches produce occasional stones of tin. In the 150 fathom level west end, the lode (Martin's) is worth 25*l.* per fathom. In the 140 fm. level east winze the lode (Martin's) is worth 30*l.* per fathom. In the 140 west end the lode (Martin's) is worth 16*l.* per fathom. In the 130 west end the lode (Martin's) is worth 7*l.* per fathom.—Cobler's:

fathom. In the 47 west end the lode (north) is worth 6*l*. per fathom.—Trevena's: In the 47 east the branches (carbona) are worth 8*l*. per fathom.—Critchley's: In the 50 the ground requires pretty heavy timbering at present, so that the progress made in sinking is not quite so good. In the 90 rise fair progress is being made. In the 140 cross-cut, the ground being still favourable, we are making good progress. No other changes to report.

PENNERLEY.—W. T. Harris, J. Delbridge, Nov. 11: Engine-Shaft: The 130, driving west on Big Ore lode, is without change; the lode is small, and producing occasional stones of lead. The lode in the 120, driving east, is still unsettled, but indications are more favourable for coming together and the production of lead ore. In the 100 west the Big Ore lode is 1½ ft. wide, worth 1 ton of lead per fathom. This level driving west, on east and west lode, is worth 1½ ton of lead per fathom. The 80 going east, on east and west lode, is making good progress, but at present unproductive. The lode in the winze sinking below this level, on Big Ore lode, is producing some fine stones of lead, and very promising for an improvement as we go deeper. Above this level, on the same run, large quantities of ore have been returned, and we see no reason why a bunch of ore should not be found here. The ground is good for sinking. The lode in the 70 east is 1 ft. wide, worth ½ ton of lead per fathom. The rise in the back of the 40, on north lode, maintains its value—3 tons of lead per fathom. We shall resume the driving west, where the lode is now worth 1 ton lead per fathom—but very promising for an improvement. The lode in the 25 east is small and unproductive; we have, therefore, put the men to drive a cross-cut south to prove the Warm Water lode at this point. The lode in the winze sinking below this level is producing 2 tons of lead per fathom.—Potter's Pit: The 65 cross-cut has been communicated with the winze sinking below the 55. We have now good ventilation, and have commenced to drive west on course of lode, which is 1½ ft wide, carbonate of lime, with a little lead and blende. We have about 2 fms. to drive to meet the run of ore gone down from the level above. In the 55 we have commenced No. 2 winze: the lode is worth 3 tons of lead per fathom. The caunter lode in the 45 is yielding 1 ton of lead per fathom. At the 35 we have commenced a cross-cut to intersect this lode, and have about 2 fms. to drive to cut it; this, when done, will enable us to work with greater advantage, and increase the quantity of stuff. The lode in the winze, sinking on north lode, is yielding 2 tons of lead per fathom. The lode in the 15, driving east, is worth 1 ton of lead per fathom. The stopes throughout the mine are producing lead in usual quantities.

PERSEVERANCE.—W. Rich, W. Hambly, Nov. 11: The ground in the engine-shaft sinking below the 60 is favourable for progress; we have met with a branch in this shaft dipping south, carrying good stones of copper ore and tin. The 50 end west is without material alteration; we are cross-cutting through the lode to prove its size and composition. The lode in the whim shaft sinking below the adit at Clyjah carries rich stones of tin.

PORT NIGEL.—J. Manley, Nov. 7: The sinking of the engine-shaft is being proceeded with in a large and masterly lode, its component parts being oxide of iron, barytes, and lead ore, producing good stones of the latter. The lode in the 44 east is opening out larger, with strong spots of lead throughout, and the ground is more easily driven through previous to our cutting into the lead before in this level. The 34 east is being driven on the north part of the lode for speed, which part is producing good stones of lead and strong spots of copper ore; the main or lead-bearing part is still standing north, which, when last taken down, yielded 35 cwts. of lead per fathom. No. 1 winze sinking below this level is down 5 fms.; here we cut into a powerful influx of water—too powerful for manual labour—consequently we are compelled to suspend sinking. When the 44 is extended far enough (say about 2 fms.) we shall put up a rise to meet this winze, which can be done much cheaper than sinking. We cut into the lode on bottom of winze, and took out some good stones of lead therefrom. The six winzemen are now engaged rising in back of the 34, and cutting open the lode to its full width—about 6 fms. in rear of the present end. We sampled on the 5th inst. 25 tons of silver-lead ore for sale on the 12th, biddings for which shall be sent you in due course.

PORT NIGEL.—J. Manley, Nov. 12: In sinking down the north part of the lode in the 34 east we have cut into a branch of lead ore from 2 to 3 in. wide up and down the forebreast. There is a very fine lode at the engine-shaft, and it is improving as depth is attained. No other change.

PRINCE OF WALES.—J. Gifford, J. Pryor, Nov. 10: On Saturday the following bargains were set:—The 77 to drive east, by six men, stent 4 fathoms, or the month, at 8*l*. per fathom; lode 1½ ft. wide, composed of capel and quartz, with occasional stones of copper, but not to value. In the 65, east of the cross-course named in our report for the general meeting, we are taking down the north part of the lode, which is heaved north with the cross-course, and which is producing good stones of copper ore, although not in paying quantities, and shows a promising appearance; it is set to four men, per bargain, at 4*l*. A rise in back of the 65 east, by two men, at 75*s*. per fathom; lode 1 ft. wide, composed of gossan and capel, with a little tin intermixed.—Tribute: A pitch in the back of the 45, east of the shaft, by four men, at 13*s*. 4*d*. in 1*l*. A pitch in the back of the 55, west of the shaft, by four men, at 13*s*. 4*d*. in 1*l*. A pitch in the back of the 77, west of the shaft, by four men, at 13*s*. 4*d*. in 1*l*. We have seven pitches, working by 24 men, at an average tribute of 12*s*. 6*d*. in 1*l*. The Silver lode is still very poor.

PRINCE OF WALES.—J. Gifford, J. Pryor, Nov. 12: The ground in the 77 is a little easier for driving, and letting out water freely.

QUEEN'S (Silver-Lead).—E. Evans, Nov. 11: The lode below the 140 yard level continues strong, better for progress, and yielding more calamine. The 140 yard level, east of Gladstone shaft, is very promising. I have put 12 men to push on blasting the lead ground on the roof and bottom of the 80 yard level (new lode). The stope below the level yields lead from a joint of clay and spar. The roof yields lead from three points (or places), but is rather hard for progress. We have 5 tons of lead for to-morrow's sale.

RHEIDOL.—John Ridge, Nov. 7: The men are making fair speed in sinking the engine-shaft below the 20. I am pleased to say the lode in the 10 west has very much improved this week; there is a strong mixture of lead and blende, 18 in. wide, good saving work for dressing, with every appearance of improving.

ROMAN GRAVELS.—A. Waters, Nov. 12: No change of note here since my report of last week. The sale of 230 tons lead ore to-day realised 3411*l*. 15*s*.

SOUTH GREAT WORK.—S. J. Reed, Nov. 12: The flat-rod shaft has been commenced below the 35 fm. level; the price is 15*l*. per fathom. The lode in the 35 west has improved; it is worth 14*l*. per fathom, and is now near the dip of tin passed over in the level above. The winze sinking below the 25 is opening good tribute ground. In the 20, west of engine-shaft, the lode has further improved, and is worth 18*l*. per fathom. A rise is being put up behind this end against the Derry shaft, and good tinstuff is being broken. The lode in the 10 west is worth 8*l*. per fathom. The tribute department consists of the usual number of tributers, at tributes varying from 9*s*. to 15*s*. in 1*l*.

SOUTH PRINCE PATRICK.—J. Jones, Nov. 11: Quite unable to send report by this post. Am selling 40 tons of ore at the ticketing to morrow.

SOUTH ROMAN GRAVELS.—J. W. Powning, Nov. 12: Shelfield: We started the pumping-engine, with pitwork attached, on Friday night last, and got the mine in fork yesterday. The engine works capitaly well, and keeps the water at seven strokes per minute. I have six men in the 20 east securing a portion of the level, which has become bad through the water being in; this will be finished in a day or two, when the driving will be at once resumed in a lode full 3½ ft. wide, composed of splendid-looking carbonate of lime, with nice patches of lead ore throughout; I believe we shall soon have a great improvement here. The 20 end west is being driven by six men; there is a large opening, or cavity, in the lode, in which we find splendid lumps of solid lead ore. On the south or hanging side of the cavity there is a nice branch, 8 inches wide, of carbonate of lime and lead ore mixed, and the indications promise a speedy improvement. We shall not be in a position to resume the sinking of the engine-shaft for a few days.

ST. AGNES CONSOLS.—Wm. Vivian, Nov. 12: In the engine-shaft sinking on the flat lode below the 72, the lode is 3 ft. wide—very kindly in appearance, producing some good tinstone. In the 72 cross-cut, driving south of the engine-shaft, we have cut in the lode about 2 ft.; so far as seen it is a fine-looking lode, composed of spar, mundic, peach, and tin.

ST. DAVID'S (Holywell).—J. Jones, Nov. 11: I have been so busy and weather so very boisterous, as to prevent me sending report to-day. Shall sell 5 tons of ore (our first sale) to-morrow at the Holywell ticketing.

ST. JUST AMALGAMATED.—Richard Pryor and Son, Wm. Bawden, Thomas Richards, Nov. 10: On Saturday last we set the following bargains:—Saveall's engine-shaft to sink below the 120 by six men and three boys, at 17*l*. per fathom; the lode is 3 ft. wide, producing saving work for tin, with a good appearance. The 120 to drive west of engine-shaft, by six men, at 7*l*. 10*s*. per fathom; the lode is 2¾ ft. wide, worth 15*l*. per fathom. At this point, judging from indications, we have every reason to expect a further improvement in the value of the lode shortly. The 110 to drive west of engine-shaft, by eight men, at 6*l*. per fathom; the lode is worth fully 20*l*. per fathom. We also set 43 tribute pitches at various places throughout the mine, at tributes varying from 11*s*. to 15*s*. in 1*l*. The machinery throughout the mine is in fair working condition.

ST. LAWRENCE.—Nov. 12: The lode in the 80 yard level, driving west of the new shaft, is producing some fine lumps of ore, and looking promising. I have not yet been able to get ladders to put in the swallow, so that I cannot say anything more about its depth than before; I cannot put a line down as it catches on a step in the footwall of the swallow, but it is a great depth. We got a few small lumps of ore from the end of the 52 yard level yesterday. The lode is about a yard wide, of a promising appearance.

TAN-YR-ALLT (Cardiganshire).—John Davis, Nov. 12: The 12 south end continues in a rich course of ore, and we have now driven 7 fms. from the winze. The driving north has come into very hard ground, and the lode has improved in consequence, and contains a rib of silver-lead ore about 2½ in. solid, but as the lode appears to be opening I hope this will improve. We have had a fine discovery in the new winze (which is being sunk 30 fms. further south than the No. 2 winze), as in sinking we cut this week a splendid course of ore 4 fms. below adit, and I hope this will hold back north to the other winze, and thus give us a stope 30 fms. long. When we have got down to 12 fms. deep we shall draw back to meet the other level. The men are continuing the cross-cut south to cut the east and west lode, which they will do 20 fms. from surface, and immediately below the old workings on the hill, from which a good deal of tin was sold. We intended to commence a cross-cut in the western portion of the mine near the carpenter's house, where three east and west lodes are running parallel about 20 fms. apart, the two northernmost lodes underlying south, the other underlying north. The cross cut will take these lodes 50 fms. from surface, below where the junction must take place. The office will be completed this week in time for pay.

TANKERVILLE.—A. Waters, Nov. 12: Setting Report: The 152 fm. level, west of Watson's engine-shaft, by six men, at 17*l*. per fathom; lode 6 ft. wide, worth 3 tons of lead ore per fathom. The 152 cross-cut north at 12*l*. per fathom, and south at 10*l*. per fathom, together by six men; we are driving north here to the lode seen in the 190 cross-cut, and south to the side lodes, also seen in the upper levels. The 132 stope, west of shaft by four men, at 6*l*. 10*s*. per fathom; lode worth 3 tons of lead ore per fathom. The 140 fm. level to drive west of engine shaft, by six men, at 14*l*. 10*s*. per fathom; lode worth 3 tons per fathom; the same level to drive east of shaft, by four men, at 13*l*. per fathom; worth for lead 2½ tons per fathom. The bottom of the 140 west to stope by six men, at 7*l*. per fathom; worth 4 tons per fathom. No. 1 stope, in the roof of the 140 west, by four men, at 6*l*. 10*s*. per fm.; worth 4 tons per fathom. No. 2 stope, in the same level west, by six men, at 6*l*. 10*s*. per fathom; worth 3 tons per fathom. No. 3 stope, in the 140 west, by four men, at 6*l*. 10*s*. per fathom; worth 3 tons per fathom. The 120 fm. level to drive west of shaft, on main lode, by four men, at 13*l*. per fathom; lode worth 2½ tons per fathom; this end is now carried several fathoms through the bed, or hanging wall, which cut off the great deposit of lead in the upper levels: and it being the only end in the mine driven at all beyond the said wall, on an east and west course, we look upon the ore ground which is at present in sight as an important—very important—discovery. The 120 fathom level to drive west of shaft, on the south lode, by four men, at 14*l*. per fathom; the lode is 5 ft. wide, and is now worth 1½ ton per fathom. The lode in the roof of the 120 west, on main lode, by four men, at 6*l*. 10*s*. per fathom, worth 3 tons of lead ore per fathom. The 120 cross-cut, north of Tankerville lode, by four men, at 15*l*. 10*s*. per fathom; we are now into a very strong lode here, but having only reached the wall and bored 1 ft. into it last night we are not yet able to report on its merits; a considerable flow of water shows itself through the borer-hole. The stope in the 110, west of shaft, by four men, at 7*l*. per fathom, worth 2½ tons per fathom. The stope in the back of the 100 west, by four men, at 7*l*. per fathom, worth 2 tons per fathom. The 92, west of shaft, by six men, at 14*l*. per fathom, worth 1½ ton per fathom. The 82, west of shaft, by four men, at 15*l*. per fathom, yielding stones of lead ore. The stope in the roof of the 82 west, by three men, at 7*l*. per fathom. A winze below the 74, west of shaft, by four men, at 14*l*. per fathom, worth 1 ton per fathom, and improving as we go down. The stope in the bottom of the 74, east and west of Butler's winze, by six men, at 7*l*. per fathom, worth 2 tons per fathom. We have this day sampled 100 tons of lead ore for sale on Thursday next. I am asked a question as to when sinking below the 152 will be commenced, and my reply is we shall push the present bottom level west into the rich run of ore seen in the 140, and open up the ground for stopes. To do this a winze must be sunk from the 140 to the 150 in the lead. It will take six months to make things ready for deepening the mine. I would inform shareholders also that by waiting we shall be better able to judge as to what underlie we should keep in sinking to the 162.

TREBEIGH CONSOLS.—J. Gifford, T. Neill, Nov. 12: In the adit level west of the shaft the lode is 2½ ft. wide, composed of quartz, capel, and gossan, with occasional stones of lead ore and arsenical mundic intermixed—a strong, kindly lode.

TRELEIGH WOOD.—E. Hosking, W. Goldsworthy, Nov. 11: The men will complete the tramroad from the engine-shaft to the 44 east end by the end of the week, when we shall be in a position to tram all the stuff from the new stopes. The lode in the 34 cross-cut, west of the engine-shaft, is producing good stones of copper ore. The lode in the 34 east end, east of the cross-course, is worth 20*l*. per fathom. The lode in the stope in the back of the 34, east of Harris's winze, is yielding better-quality tinstuff, and is now worth 10*l*. per fathom. The stope in the bottom of the 24, east of the Windmill shaft, is worth 9*l*. per fathom. There is no change to notice in the other bargains. We are pushing on the stamps and dressing as fast as possible, to get all the tin we can against the meeting.

TREVARRACK.—James Pope, Nov. 10: The engine-shaft is 12 fathoms below the 60, and the lode is from 4 to 5 ft. wide, composed of peach, mundic, and iron, with stones of tin, but not enough to value. In the 60 east the lode is 2½ ft. wide, with a soft part on the south 9 in. wide, producing tinstone of low quality. Since the intersection of the north lode there is a great improvement in the appearance of the lode, from which I am daily expecting to discover some valuable tin ground.

TYLLWYD.—John Paull, Nov. 12: The lode in the south-west level is 5 ft. wide, yielding 25 cwts. of lead ore per fathom. We have now driven on this lode a distance of 17 fms. The produce of same has varied from saving work to 2 tons of lead ore per fathom, and will average fully 1 ton 5 cwts. per fathom for the whole length. As there are about 30 fms. of whole ground above this point we may reasonably expect this ore will continue nearly to grass, as almost nearly all other deposits have done. Should this be the case we have now nearly 500 tons of ore in this place. The lode in the 20, west of cross-cut, at engine-shaft, has been poor for the last 4 ft., but now it is improving, and from present appearance will soon resume its former character. There is a portion of the lode still standing on the north side, which we have put the men to cut through to-day. As we are now approaching the shaft at mouth of level, and good ore in bottom of same, there cannot be much doubt of this level soon being as productive as ever. This level has been driven west of engine-shaft 13 fms. in a lode varying from 2 to 3 ft. wide, yielding on an average about 1 ton of lead ore per fathom. Taking this at 12 fms. high, there is in this place 156 tons. You will observe here that there is an old stope in bottom of adit, and ground taken away 7 fms. deep. This will not be the case for the future in this direction, as we are now entirely in whole ground to surface. This level is being urged on with all possible dispatch, in order to get under the shaft mentioned above. We have on surface and broken underground from 25 to 30 tons of ore. Everything is being pushed on with all possible dispatch, and weather favourable for surface operations.

VAN CONSOLS.—J. Roach, Nov. 12: Monthly Report: No. 0 winze is sinking on north part of lode, east of main shaft, by six men, until the 25 shall be reached. This part of the lode yields solid stones of lead and ore disseminated throughout. At the 25 we shall drive a cross-cut through the lode, where we expect to find it well charged with lead. We are now taking the water out of No. 1 winze, and shall let it to sink to-morrow, the lode in which is similar to that described above. West of No. 2 winze lead ore has made its appearance. We have driven south in the lode 7 ft.; this produces about 35 cwts. of lead per fathom. Width of lode not yet ascertained. Still cross-cutting south in ore. I feel positive this will greatly improve when we drive west on it. The stope in the roof of the 25 is yielding 2 tons of lead per fathom. In the new drawing-shaft, east of main shaft, about 124 fms. will be rapidly sunk, and soon reach the most productive ground that has been discovered in the company's property. Dressing of lead is going forward, and the grinding of barytes resumed. The mine throughout is looking much better than for some time past.

VAUGHAN.—Nov. 9: In the deep adit level east the part of the lode being carried is 5 ft. wide, chiefly composed of a light clay slate and branches of carbonate of lime, letting out water freely. The stent of 50 fms. is completed, and have again set six men a stent of 20 fms. to drive, at 8*l*. per fathom, the men to tram all stuff.

WEST ESGAIR LLE.—R. Harvey, Nov. 12: We have commenced to drive east on the course of the lode in the 34, and I am pleased to inform you that we have broken some fine stones of lead ore, and are daily expecting to get into something better. I feel satisfied that we shall meet with something good here. The 24 east is daily improving; there is a fine lode in this end. The water is going down in the winze in bottom of the 10, and I think in the course of a few days we shall be in a position to resume sinking this winze to communicate with the 24. I have not yet been able to obtain men to strip the lode in the 24 west, but hope to do so before next report. The tribute pitches in back of the 10 are daily improving in value. I have no change to report in any of our undergrounnd operations in western mine. The stopes are looking remarkably well, and dressing goes on regularly.

WEST GODOLPHIN.—John Pope, Nov. 7: Caunter Lode: Pressure shaft is down 9 fms. 3 ft. below the 50, worth 10*l*. per fathom. The lode in the 50 south is worth 10*l*. per fathom. In the 30 south it is small. Vivian shaft is completed to the 20. Pink lode, in the 50 east, is split, and the ground hard. In the 50 west the lode is worth 8*l*. per fathom.—South Hope Lode: Wilson's shaft is down 7½ fms., worth 15*l*. per fathom.

WEST GREAT WORK.—S. J. Reed, Nov. 11: I have set a contract, to three men, to clear up and secure Watson's shaft to the adit, fix ladder way, &c.; this will be found important, as we have good tin ground in the bottom of the shallow level dipping towards below-named shaft. No. 2 lode, in driving west from Trescow shaft, is worth 9*l*. per fathom. There is another branch, or dropper falling in with the lode, and which will, I think, materially improve its value, as we find is usually the case. Our stamps are working well with a full supply of water.

WEST MARIA AND FORTESCUE.—W. Skewis, N. Coward, Nov. 12: We have no change worthy of notice to communicate since report for last general meeting.

WEST MILWR.—William Francis, Nov. 11: The cross-cut south from West Meadow shaft progresses well, and we have some strings between the beds, containing a little ore and blende in very congenial measures.

WEST TANKERVILLE.—Arthur Waters, Nov. 12: The south boundary shaft, to sink below the 50, by six men, at 17*l*. per fathom. The rise in the 50 south, by four men, at 10*l*. per fathom; lode worth 2 tons per fathom. The winze below the 46 south, by two men, at 10*l*. per fathom; lode worth 2 tons per fathom. To stope in the 46 south, near the junction of Nos. 1 and 2 lodes, by four men, at 4*l*. per fathom; worth 2 tons lead and 2 tons of blende per fathom. The No. 2 lode shows a good course of lead, and as we shall soon be in a position to drive north on its course, we hope to open up good stoping ground. In a fortnight from this date we set all sample 25 tons lead and 50 tons blende.

WHEAL ARGUS.—T. Trahair, Nov. 11: There is nothing new in the mine for the past week. The stamps are working well, and stamping a great quantity of stuff, but the quality of the work is not quite so good.

WHEAL BASSET AND GRYLLS.—Wm. Oats, P. Prisk, Nov. 4: The 45 is being driven east of Wheal Cock engine-shaft, by six men, at 9*l*. per fathom; lode 3 ft. wide, and worth 11*l*. per fathom. The 35 is being driven east of said shaft, by six men, at 6*l*. 10*s*. per fathom; lode 5 ft. wide, and worth 14*l*. per fathom. The new shaft, on south lode, is being sunk, by nine men, at 17*l*. per fathom; now down 9 fms. below the adit level; the lode here is 5 ft. wide, and producing tin to about pay for sinking. We have two men clearing and stoping eastward in search of the old men's deepest workings; here the lode is 4 ft. wide, and worth 9*l*. per fathom; there are 16 pitches being wrought by 41 men and boys, at tributes varying from 10*s*. to 15*s*. in 1*l*., at 50*l*. per ton for tin.

WHEAL CREBOR.—J. Andrews, Nov. 11: The following was our setting on Saturday:—To drive the 120, east of Cock's shaft, by four men, at 12*l*. per fathom; the lode in this end is small and unproductive. To stope the bottom of the 120 east, by six men, at 8*l*. per fathom; the lode is 7 ft. wide, worth 15*l*. per fathom. To stope the back of the 120, by six men, at 6*l*. per fathom; the lode is 6 ft. wide, worth 30*l*. per fathom. To drive the 108 east, by four men, at 100*s*. per fathom; the lode in this end is looking a little more encouraging, but is still unproductive. To drive the 72 east, by four men, at 6*l*. 10*s*. per fathom; the lode in this end is much the same as for several weeks past. To drive the 48 east, by four men, at 130*s*.; the lode is strong and masterly, and yielding good stones of lead, but not enough to value.

WHEAL GRENVILLE.—E. Hosking, W. Bennetts, Nov. 7: Setting Report: The 160 to drive north through the lode by nine men, at 20*l*. per fathom; the lode is worth 35*l*. per fathom. The 150 to drive east and west of cross-cut, by eight men, at 12*l*. per fathom; the lode in each end is worth 15*l*. per fathom. To stope below the 140, east of winze, by four men, at 6*s*. 6*d*. per ton; the lode is worth 12*l*. per fathom. The 140 to drive east of cross-cut, by four men, at 17*l*. per fm.; the lode is worth 8*l*. per fathom. To stope above the 140, east of cross-cut, by six men, at 6*s*. per ton: the lode is worth 15*l*. per fathom. To stope above the 140, east and west of rise, by eight men, at 6*s*. per ton; the lode is worth 15*l*. per fm. To drive the 130 cross-cut north of new shaft, by six men, at 11*l*. per fathom; the ground in this end is much easier, and we are meeting with small branches of tin. To drive the 130 cross cut north of north shaft, by six men, at 14*l*. per fathom. To drive the 130 east of north shaft, on old lode, by two men, at 6*l*. per fathom; the lode is 18 in. wide, producing saving work for tin. To rise above the 120, east of north shaft, by four men, at 8*l*. 10*s*. per fathom; the lode is 2½ ft. wide, worth 12*l*. per fathom. To stope above the 120 east by four men, at 2*l*. per fathom; the lode is worth 9*l*. per fathom. To sink a winze below the 110 east by four men, at 7*l*. per fathom; the lode is 2½ ft. wide, worth 12*l*. per fathom. We have also set 17 pitches to 37 men, at an average tribute of 12*s*. in 1*l*., the tributers to be paid at the rate of 50*l*. per ton for black tin.

WHEAL GRENVILLE.—E. Hosking, W. Bennetts, Nov. 12: In the 160 cross cut the bottom of the end is in the lode about 3 fms., and we do not yet see any signs of the north wall. The lode is worth 35*l*. per fathom. There is no other change, except that the ground in the 130 cross-cuts is getting more favourable.

WHEAL KITTY (St. Agnes).—Stephen Davey, John Williams, Nov. 7: We have no change to report in any of the bargains throughout the mine during the week.

WHEAL MARY HUTCHINGS.—H. Miners, Nov. 11: The lode in the 32, east of engine-shaft, is of a very promising character, and letting out water freely; there is every reason to expect from its appearance of meeting with a very productive lode in a few fathoms more driving. In the 32 west the lode is about 18 in. wide, producing saving work for the stamps. The lode in the 22, east of Arnold's shaft, is about 4½ ft. wide, composed of peach, spar, and mundic, producing about 8 lbs. of tin to the ton of stuff; from all appearance this lode is likely to become very productive as we drive east. In the new south lode the lode is still worth from 10*l*. to 12*l*. per fathom, and from the improved state of the ground which has lately taken place, we may shortly expect a more productive lode in this part of the mine. The main lode still continues to look well, and since my report on Sept. 30, in which I stated it would produce from 30 to 35 per cent. for the arsenic, besides tin, I am pleased to say we have found a market for that mineral, and have engaged with a gentleman this week who has been to the mine and seen the mundic, to supply him with 300 tons at once at a remunerative price to the company. This will again add to the bright future of Wheal Mary Hutchings, in not only the development of the main lode, which is one of the most promising for making large and rich deposits of minerals in depth, but will enable us to lay open other parallel lodes of equal value which run through the entire length of the sett; and, no doubt, as I have before stated in my former reports, that as the lodes in the above property are developed they will open up far richer, and more remunerative to the shareholders than they ever have been.

WHEAL PRUSSIA.—W. Tregay, Nov. 12: There is no particular change to record since last report. The sinking under the 30 being worth 40*l*. per cubic fathom, and in the 30 end west 20*l*. per fathom.

WHEAL RUSSELL.—J. Bray, Nov. 12: The lode in the 25 fm. level is 4 ft. wide, with stones of ore, but not enough to value. The lode in the stope above this level is worth 20*l*. per fathom. The lode in the rise above the 25 is worth 12*l*. per fathom. There is no improvement in the 40 or in the rise above the 40 fm. level. The lode in the stopes is looking well. We sampled last month 105 tons; this month we shall sample 100 tons.

WHEAL UNY.—W. Rich, M. Rogers, W. Rich, jun., Nov. 7: The lode in the 40, west of Incline shaft, has been disordered by a small cross-course, but beyond this the lode is again improving, and is now worth 8*l*. per fathom. The stope in the back of this level behind the end is worth 12*l*. per fathom. The 100, east of King's, is worth 10*l*. per fm. The 110 east is worth 8*l*. per fathom. The 120 east is worth 15*l*. per fathom. The 130 end east is worth 12*l*. per fathom. The 140 east is worth 10*l*. per fathom. The 150 east is poor, but letting out more water. The rise in the 150 west carries a little tin. The 160 west is unproductive. The 160 east is worth 7*l*. per fathom. The 140, west of Incline shaft, is worth 10*l*. per fathom. The 130 west is poor. The rise in back of the 120, west of old run, is worth 10*l*. per fathom. We have to-day sold 13 tons, 10 cwts. 2 qrs. 22 lbs. of tin.

WILLOUGHBY.—H. Nottingham, Nov. 9: The 23 driving south on new lode is yielding 1½ ton of lead per fathom, with fair ground for progress. The 23 north is suspended, being poor, past the junction of Goddard's lode. The stope or driving age we are pushing on south of winze below the 13, on new lode, is going forward in a splendid looking lode, but as yet is not rich for lead, but I am confidently looking forward to having the same course of ore here that we have in the bottom level. The stopes behind the shaft are poor. We shall now proceed with the stope below the 13, north of shaft, which is worth 1 ton of lead and the same of blende per fathom.—Goddard's Lode: The stope in the back of the 23 south is worth 1½ ton per fathom. The stope south of winze, below the 13, is worth from 15 cwts. to 1 ton of lead per fathom. Both of these stopes are yielding from 1 ton to 1½ ton per fathom of blende. I have four men now driving the 13, south of No. 2 shaft, to get under the ore ground we are working upon in the No. 3 and 4 shafts, which are in advance of this end. The lode here is yielding blende, but no lead, but we may have an improvement here any day. I have also set a tribute bargain in the bottom of the 13, north of winze, at 7*l*. per ton. This is likely to open up more of the course of ore we are working upon in the 23 below, for I believe we touched the top of it in this level. The stope going south of No. 3 shaft is worth from 10 to 15 cwts. per fathom of lead and 1 ton of blende. We are now deepening the No. 4 shaft, and I am glad to say the lode is looking better, producing 1 ton of lead per fathom. We shall have 12 tons of lead ore sampling by this day week, after which we shall proceed to clear up the blende for a sampling of (say) 30 tons, the week following.

WHITEHAVEN IRON.—T. Rosewarne, Nov. 11: The lode in the new drift is a little improved; the stone which I mentioned in my last is wearing out, and the vein of ore is making better on the footwall part of the lode. The lode in No. 3 drift is fully 8 ft. wide, and showing a very kindly appearance for making ore shortly. No. 4 drift is worked by six men, and we are pushing on as fast as possible to get in under the point in No. 3 drift above, where the old men had a very rich lode. No. 5 drift is worked by six men, and we are pushing on as rapidly as possible; the lode is still improving. I have taken a sample of ore from here this week, to have it analysed. The stopes are all looking well. No change in any other part of the mine to notice. Daymen are now busily engaged in extending the incline road down to meet the railway.

MINING IN CARDIGANSHIRE.

We understand that a company is in course of formation with a view to making preliminary trials on one or two promising mines in this district. It seems unaccountable that the investing public should go to foreign countries with their capital when such a splendid field for enterprise exists in the Cardiganshire lead mines. Let us look for a moment at past results. To refer to Sir Hugh Middleton is but to repeat an oft-told tale, and, indeed, if all the mines which claim their origin from that grand old miner were to be described we should have to issue a special Supplement; but when we remember Goginan, the Darrens, Cwmystwith, Cwm Erfin, Frongoch, Cwmsymlog, Esgair-hir, &c., old mines which have yielded millions of pounds sterling in minerals; when we consider, too, the shallow depth to which even the oldest of them has been worked, we are astonished that so little should be doing, but we are not at a loss to account for the public apathy. Our correspondents, "A. C. H." and "J. B.," have hit the right nail on the head. Mines, good, bad, and indifferent, are brought into the market, and the vendors are to be paid enormous sums, in many instances where the only expenses incurred have been advertisements, brokers' and law expenses; indeed, the newest fashion appears to be merely to state the capital without saying how much is to be applied for the working of the mine, or what the purchase is to be at all. What is the result? If, by an extraordinary piece of luck, a good course of ore is cut, the investors whose money discovered it find themselves swamped by the vendors' shares, and any profits are like the "barley loaves and fishes," "what is that among so many?" On the other hand, if a rich discovery is not made at once, there is the old cry of "more capital; cowardly to give up the mine;" then it is discovered that the vendor has had the lion's share of the capital, mayhap has disposed of his shares, which even if he holds are all fully paid-up. He contributes nothing to raise "more capital."

Investors in mines must not run away with the idea that even in the best of mines that they can put down a shilling and take up a pound. Mining requires time; the richest course of ore that ever was cut cannot be taken away, and economically, without time and money. Neither must investors be deluded by sales of ore. We frequently see, shortly after a company is formed, a sale of ore, 20, 30, 40, or 50 tons, as the case may be, but it should be borne in mind that this ore (let us say) has been carefully hoarded up for months by the vendor—we do not cart ore from other mines in this country; our enterprise in that respect is confined to a few specimens for London offices—with a view to this very sale, by means of which he hopes to slip out a few of his fully paid-up shares.

If mining in Cardiganshire is ever to hold up its head it must be by the introduction of an entirely new method of transacting business. Let us have more moderate capital, and more of it applied to working the mine. Let us see vendors taking all the payment in paid-up shares. Let us see less brokers and more miners about the mines. Let us see thoroughly trustworthy agents employed, and not men who require two or three directors and a secretary, expenses paid) down every two or three months to look after them, and do not let us be always dragging in poor Sir Hugh Middleton's name to show what can be done in Cardiganshire. Lee us point to present and substantial results; let dividends be paid when they are earned, not before. Let ore be sold when it is broke, not before, and we are mistaken if we shall not find the public as anxious to invest in lead as in coal—as glad to send their money to Cardiganshire as to California.

KINGSTON VALLEY LEAD MINE.

We last week printed a report from Capt. Rodda, giving a most favourable account of this mine, and we now have pleasure in giving a report by Mr. James Richards, of the Devon Great Consols. Mr. Richards' great experience and knowledge of mining, make this report all the more valuable as to the capabilities of Kingston Valley Mine:—

Devon Great Consols, Oct. 28.—By your permission, I last week inspected this mine, and it affords me great pleasure to state that I was most favourably impressed with the masterly appearance and great strength of the lode throughout the whole of the workings. It, undoubtedly, possesses the true features of a great lead-bearing lode, being rich in silver, and strongly intermixed with a large quantity of gossan, carrying also an abundance of capel, and a large proportion of carbonate of lead, forming altogether great strength and durability of character. A large and valuable lode has gone down in the bottom of the adit level, and in the 18, below the deepest point reached, an important improvement has taken place, such as I have rarely or ever seen in the early stages of development of any mine. The produce of silver lead, carbonate of lead, and blende ores from the present workings is considerable, as may be viewed at the surface; and the lode in the present end, and in the rise in the back of the 18, will yield large quantities of lead and blende ores. On a previous occasion I was very much struck with the appearance of the lode at surface, and the remarkably congenial nature of the country through which the shaft was then being sunk, as well as with the flookan courses and the large cross-course coming in contact with the lode, and these indications having already led to the actual discovery of a course of silver lead, I have no hesitation whatever in expressing my opinion that the extension of the workings will lead to the laying open of a great mine.

CORNISH MINE SHARE MARKET.—During the week the share market has continued firm with a good demand for most shares. Prices generally have been strengthening, and stock has been scarce on the market. Tin seems to be gradually advancing. Straits is now bringing 94*l*., Australian 93½*l*., 94*l*., Banca 100*l*., and English ingots 100*l*. The following are the closing prices:—Carn Brea have not been so much dealt in as some other shares, price about as same as last week—55, 57. Cook's Kitchens have been rather more enquired for at about 9. 9½. Dolcoaths largely dealt in, and advanced to 48, 50, at which they close. East Pool shares, in absence of business, are called 7½, 8; East Lovells nothing doing, called 10, 11; Providence, 4¼, 5¼; South Condurrows, 3¼, 3½; South Croftys, 8, 9; South Frances since the meeting are 11½, 12½; the 4*l*. call paid. St. Ives Consols,

3d., on Marbella; 4d., 6d., on Monkland ordinary; 1s., 1s. 3d., 1s. 6d., 1s. 4½d., 1s. 6d., on Tharsis; 1s. 3d. on Tharsis new; 3d. on Young's Paraffin; Omoa and Cleland were even.—Backwardations: 3d., 2d., on Merry and Cuninghame; and 6s. 3d. on Shotts. The changes in these rates, compared those of last contango day, are very slight, and (beyond that the contango on Glasgow Caradon shares is now more in favour of buyers, showing that the account for the rise in these shares is now, probably, in better hands) do not call for note. The making-up-prices show a rise of 1s. 6d. on Canadian Copper Pyrites, 2s. 6d. on Glasgow Caradon, 6d. on Huntington, 8s. 9d. on Marbella, and 4s. on Monkland ordinary; a fall of 1s. on Emma, 2s. on Port Washington, and 1s. on Omoa and Cleland. Merry and Cuninghame and Young's Paraffin are unaltered. Tharsis at 26⅛, and the new shares at 18¼ (comparing with 27⅛ and 18⅞) appear 1l. and 12s. 6 l. respectively lower, but it must be kept in mind that since last contango day the interim dividends of 25s. and 17s. 6d. have been paid, so that the shares are both about ¼ higher for the account.

On Wednesday the business done was smaller, but prices still keep steady. The account for settlement Nov. 30 opened to-day: Thursday, Nov. 26, will be cantango day. Benhar, 14½ to 14⅝; Bolckow, Vaughan, A, done at 55½; Canadian Copper Pyrites firm, at 52s. to 52s. 6d.; Ebbws done at 22, closing 22 to 22⅛; Glasgow Caradon firmer, at 32s. 6d. to 33s. 6d.; Islay Lead lower, at 5-16ths to 7-16ths; Javali, 4s. 3d. to 4s. 9d, but offered at 4s. 6d. for cash; Marbella again in demand, at from 6l. to 122s., closing good at 6 1-16th to 6⅛; Merry and Cuninghame firmer, done at 71s., closing 71s. to 72s.; Monkland ordinary done at 92s. and 92s. 6d., closing 91s. 6d. to 92s. 6d.; Niddrie changed hands at 51s.; Panuncillo firmer, at ½ to 1; Tharsis were again in demand, and were done at from 26⅞ to 27¼, closing 27⅛ to 27¼; new shares have improved, but are still relatively the cheaper, at 18¾ to 19. Scottish Australian firm, at 1½ to 1¾; the half-yearly report has been issued recommending a dividend at the rate of 15 per cent. per annum, leaving 192l. to be carried forward. Young's Paraffin unchanged, at 5⅛ to 5¼. Subjoined will be found the latest prices:—

Amount fshare.	Amount paid up.	Name.	Latest price.
		COAL, IRON, STEEL.	
£10 ...	4 ...	Arniston Coal (Limited)	4
10 ...	10 ...	Benhar Coal (Limited)	14⅜
100 ...	35 ...	Bolckow, Vaughan, and Co. (Limited) ..... A.	55½
10 ...	5 ...	Cairntable Gas Coal (Limited)	5½
10 ...	10 ...	Chillington Iron (Limited)	6
32 ...	29 ...	Ebbw Vale Steel, Iron, and Coal (Limited)	22⅛
10 ...	3 ...	Fife Coal (Limited)	5¼
10 ...	7 ...	Glasgow Port Washington Iron and Coal (Limited).	7⅛.
10 ...	10 ...	Ditto All paid	6¾
10 ...	10 ...	Lochore and Capledrae (Limited)	8
10 ...	10 ...	Marbella Iron Ore (Limited)	122s.
10 ...	3½...	Merry and Cuninghame (Limited)	71s.
10 ...	10 ...	Ditto All paid	10
10 ...	10 ...	Monkland Iron and Coal (Limited)	92s.
10 ...	10 ...	Ditto 7 per cent. Guaranteed Preference.	8¼
100 ...	100 ...	Nant-y-Glo and Blaina Ironworks pref. (Limited) ...	47½
10 ...	2 ...	Niddrie Coal (Limited)	51s.
10 ...	4 ...	Omoa and Cleland Iron and Coal (Limited)	62s.
1 ...	1 ...	Scottish Australian Mining (Limited)	1¾
1 ...	5s. ...	Ditto New	⅜
50 ...	50 ...	Shotts Iron	78½
10 ...	4	Ditto New, issued at 2½ premium	6
		COPPER, LEAD, SULPHUR, TIN.	
10 ...	7 ...	Canadian Copper Pyrites (Limited)	52s.
10 ...	10 ...	Ditto All paid	6½
10 ...	7 ...	Cape Copper (Limited)	29
1 ...	1 ...	Cwm Bychan Silver-Lead (Limited)	18s.
1 ...	1 ...	Cwm Lery Lead (Limited)	12s. 6d.
5 ...	5 ...	Drake Walls Tin and Copper	5
2 ...	2 ...	Dunsley Wheal Phœnix Tin (Limited)	½
— ...	25 ...	East Black Craig Lead (Limited)	25
1 ...	1 ...	Glasgow Caradon Copper Mining (Limited)	33s.
1 ...	15s. ...	Ditto New	21s. 6d.
— ...	5¼...	Gunnislake (Clitters)	1⅜
10 ...	9 ...	Huntington Copper and Sulphur (Limited)	59s.
1 ...	1 ...	Islay Lead (Limited)	⅜
25s. ...	23s. ...	Kapunda Copper (Limited)	¾
4 ...	4 ...	Panulcillo Copper Mining (Limited)	¾
10 ...	9 ...	Rio Tinto (Limited)	5½
10 ..	10 ...	Russian Copper Mining (Limited)	2¼
10 ...	10 ...	Tharsis Copper and Sulphur (Limited)	27⅛
10 ...	7 ...	Ditto New	18¾
— ...	80s. ...	West Maria and Fortescue	¾
1 ...	1 ...	Yorke Peninsula Mining (Limited)	⅛
1 ...	5s. ...	Ditto 15 per cent. Guaranteed Preference	¼
		GOLD, SILVER.	
5 ...	5 ...	Colorado Terrible Mining (Limited)	3¼
20 ...	20 ...	Emma Silver Mining (Limited)	24s.
10 ...	10 ...	Flagstaff Silver Mining (Limited)	1⅜
2 ...	2 ...	Javali Gold Mine (Limited)	¾
5 ...	5 ...	Last Chance Silver Mining (Limited)	1
		OIL.	
10 ...	7 ...	Dalmeny Oil (Limited)	5⅞
5 ...	5 ...	Midlothian Mineral Oil (Limited)	3
10 ...	8 ...	Uphall Mineral Oil (Limited)	5
10 ...	10 ...	West Calder Oil (Limited)	7½
10 ...	8½...	Young's Paraffin Light and Mineral Oil (Limited)...	5⅛
		MISCELLANEOUS.	
10 ...	10 ...	Conglog Slate and Slab (Limited)	10¾
10 ...	10 ...	Highland Peat Fuel (Limited)	10
50 ...	25 ...	London & Glasgow Engineering & Iron Shipbuilding	21
1 ...	1 ...	North Cornwall Kaolin (Limited)	1¼
20 ...	7½...	Peruvian Nitrate (Limited)	5
10 ...	10 ...	Scottish Wagon Company (Limited)	12½
10 ...	1 ...	Ditto New	22s.

Last day for this account Nov. 28; settling day, Nov. 30.

NOTE.—The above list of mines and auxiliary associations is as full as can be ascertained, Scotch companies only being inserted, or those in which Scotch investors are interested. In the event of any being omitted, and parties desiring a quotation for them and such information as can be ascertained from time to time to be inserted in this list, they will be good enough to communicate the name of the company with any other particulars as full as possible.

J. GRANT MACLEAN, Stock and Share Broker

Post Office Buildings, Stirling, Nov. 12.

TRADE OF THE TYNE AND WEAR.

Nov. 12.—The trade is pretty active for most kinds of first-class coal; the demand for house is good, in anticipation of a winter demand, and prices are firm at about 16s. per ton for best coal. The export trade for steam coal is, of course, very limited, and considerable stocks will be laid up during the winter months. Large shipments have been made during the past week both on the Tyne and Wear, especially of gas coal, for which there is a very strong enquiry, and prices are likely to improve. The coal and coke trades in South Durham are very dull; the quantity sent into the iron-making districts has fallen off considerably, and is still falling off. Good progress is making with the extensive new winnings at Whitley, and also at Shire Moor and various other places. Of course, a great number of extensive winnings in this district and Northumberland and Durham will come into operation soon, when a large quantity of coal of various kinds will be brought into the market.

Sir Geo. Elliot, M.P. for North Durham, has been on a tour partly for the purpose of inspecting mining properties abroad. In company with several foreign engineers and gentlemen he has visited the valuable mining districts situated at the base of Mount Amiata, in the remote mountains of Tuscany. Sir George subsequently visited the Island of Elba, and inspected the rich iron deposits at Rio Marina. Leaving Elba, Sir George landed at Spezzia, when he was honoured with an interview with M. Thiers.

The iron trade continues brisk in some branches, but the rail trade is extremely bad. At Middlesborough, on Tuesday, there was a good attendance, and there were numeous enquiries for pig-iron, both for, early delivery and for next year's account. The quotations remain the same as last week, but the market is decidedly firmer. No. 1, 70s., to 58s. for No. 4. For next year business is being done at 62s. 6d. for No. 3, but buyers are extremely cautious about buying for forward delivery. The shipments, foreign and to Scotland, have been large lately, but they will now fall off rapidly. There is no better movement in the rail trade, although 7l. 10s. is quoted, local manufacturers are unable to find sufficient employment, and many men are being paid off. The iron shipbuilding trade is not expected to be very active during the winter. The bar trade is somewhat more quiet, but quotations are not altered. Ship-plates are 9l. 7s. 6d to 9l. 12s. 6d.

NORTH OF ENGLAND INSTITUTE OF MINING AND MECHANICAL ENGINEERS.—At the monthly meeting of members on Saturday (Mr. William Cochrane, one of the Vice-Presidents, in the chair), thirty-six new members were elected, this being the highest number ever elected on one day. Mr. W. Galloway, Inspector of Mines, read a paper "On some Recent Experiments with Safety Lamps," illustrated by experiments, conducted by Prof. Manico. The conclusion at which the lecturer arrived created great interest amongst a large audience, and a vote of thanks was given to him by acclamation. A detailed account of these interesting experiments will be given in next week's Journal.

Mr. G. W. SOUTHERN.—A movement is being made in aid of the family of the late Mr. George William Southern, who was for many years Inspector of Mines for Northumberland and for the northern district of Durham, and who met his death very suddenly at a comparatively early age, leaving his family entirely unprovided for. Already some 750l. has been collected. It was proposed that Messrs. Kenmir and Bunning should have the disposition of the funds at their discretion for the benefit of the family. These gentlemen will be glad to receive subscriptions.

The friends of Mr. P. W. Pickup, manager of New Copley Colliery, who is now leaving to take charge of the Dunkenhalgh Collieries, Accrington, near Burnley, Lancashire, as mining engineer, as a testimonial of their esteem have presented him with a valuable gold watch and albert, supplied by Lister and Son, Newcastle-on-Tyne. The chair was taken by Mr. R. Thompson, mining engineer, South Wingate; the vice was filled by Mr. A. Metcalf, manager of Woodland Collieries.

A new commercial association has just been incorporated under the Companies Act, with the title of the Henshaw and Melkridge Collieries Company (Limited), Northumberland, with a capital of 20,000l., in 4000 shares of 5l. each, for the purpose of acquiring from the present proprietors their interests in a lease of coal in the manors of Henshaw and Melkridge, in the county of Northumberland. The property consists of the coal under about 2500 acres of land, with moderate rents and royalties, payable to Sir Edward Blackett, and held by a lease for 21 years. A seam of from 2 ft. 2 in. to 2 ft. 6 in. is believed to exist under the entire area, and it is proposed to work this in places by means of a drift. The Newcastle and Carlisle Railway runs through the entire coal field, and facility for carrying the produce of the mine to market is thus already provided.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

Nov. 12.—The South Staffordshire Iron Trade is a degree steadier this week in the pig department, but there is not much improvement in the demand for finished iron. Manufacturers of common cinder pig are quoting 3l. 5s. to 3l. 7s. 6d.; and all-mine (hot air) pigs range from 5l. to 5l. 10s. per ton, according to brand. Two more furnaces have been put into operation by the Darlaston Steel and Iron Company (Limited), and a third will shortly be blowing. The total number in blast will thus be raised to 77, as against 94 at the corresponding period of last year. Nearly all the South Staffordshire blast-furnaces now in operation are on the "closed top" system, by which is secured great economy in the consumption of fuel. It is this fact which partially explains the diminished demand for slack, which has become almost a drug upon the market. Finished iron of the best qualities maintains a steady though not a very brisk enquiry, and prices are well supported by the leading firms on the basis of 10l. 10s. to 11l. for marked bars, with the usual extras for Earl Dudley's and Messrs. J. Bradley and Co.'s makes. Common iron is in restricted demand, and there is some irregularity in selling prices. Bars are offering at 9l. 10s. per ton, and the competion for orders is considerable even at this low figure. Local agents of Welsh firms are quoting bars as low as 8l. 15s. per ton. Sheets and plates are depressed, Cleveland and other North Country centres of the trade being keen competitors for the last-named class of iron. A steady colonial demand is experienced for galvanised sheets for roofing and such like purposes. Corrugated roofing sheets (20 guage) are quoted 20l. 10s. per ton, free on board. Tin-plates (f.o.b.) are as follows per box:—Osier bed best charcoal, 37s. 6d; H.F. crown charcoal, 36s.; ditto S. coke, 29s.; M.F. best charcoal, 39s.; crown "Talbot" charcoal, 36s. 6d.; and R.K.P. coke, 27s. 6d.

The South Staffordshire Coal Trade is without much improvement as regards the common classes of fuel, but for the best Thick coal of the Dudley district, and the Deep coal of the Cannock Chase, a steadier demand is experienced, and selling prices begin to show somewhat greater uniformity. Slack is in quiet demand throughout the district, and quotations are very irregular. Ironstones are in steady request, at 20s. to 21s. for white and gubbin.

The South Staffordshire Mines Examination Board, under the new Act, has been discharged by the Home Secretary, owing, it is commonly reported, to want of agreement between the members. The board consists of Messrs. J. P. Baker (Government Inspector); W. Bassano, Rowley Regis; J. Brown, Hednesford; and W. Blakemore, of Heathtown, who acted as secretary. The Home Secretary invites nominations of gentlemen qualified to serve on the new board.

To-day quotations on the Birmingham Stock Exchange include the following:—Sandwell Park Colliery, 36; Pelsall Coal and Iron, 1¾ dis.; Ivy House and Northwood Colliery, ½ dis.; Cannock and Huntington Colliery, ¼ dis.; Chillington Iron, 6; John Bagnall and Sons (Limited), 7; Patent Shaft and Axle, 6 prem.; Patent Nut and Bolt Company, 3 prem.; Staffordshire Wheel and Axle, 2½ premium; Birmingham Wagon (10l. paid), 17¾; Gloucester Wagon (10l. paid), 15; and Oldbury Carriage (5l. paid), 8⅛. buyers.

The North Staffordshire Iron Trade does not show much change from our last report. Common bars are 2s. 6d. per ton easier, with a somewhat restricted current demand. The mills are, however, fairly engaged, especially in the heavy bar department. Plate iron is in sluggish demand, and some of the mills are only in partial operation. The pig-iron trade is quiet, and stocks are rapidly increasing.

The competition of Belgian ironmasters is not now felt in any serious degree by makers in Staffordshire, certain modifications having lately been made in the price of Belgian iron, the lists having "extras" attached to them, which was not the case previously. Belgian bars, delivered on the Thames, are 8l. 18s. for common, 9l. 10s. for best, and 10l. 2s. for best best of ordinary running sizes; but what the Belgian iromasters term "best" is not superior to what in Staffordshire is designated common iron, so that the difference in price is scarcely sufficient to tempt purchasers, especially considering the tardy delivery and the uncertainty as to quality, of which so many English buyers of Belgian iron have had to complain.

The Board of Trade returns for October, which have just been issued, are, as far as regards the exports of iron and steel, much more satisfactory than they have been at any time during the last 18 months or more, for nearly every description of iron has been sent in larger quantities, indeed, they do not fall far short of the exports of 1872, and considerably exceed those for last year. In the principal kinds manufactured in the midland districts—hoops, sheets, bars, angles, and plates—a much larger tonnage has been dispatched than in October, 1872 or 1873, and this bears out exactly the remarks that have been made as to the improvement in trade which has manifested itself for some time past, but more especially since the quarterly meeting, when prices were fixed, and foreign buyers were induced to come more freely into the market. From the number of orders which have been received lately, and from the way in which the works are now employed, we anticipate that the figures for the present month will be quite as favourable as they were for October, even though the navigation season virtually closes with the opening of this month. It must be very encouraging to manufacturers to note this improvement, after they have suffered so severely from the depression, and they may reasonably hope that, as the crisis is past, things will gradually mend.

Mr. Thomas F. Fisher, of the Whitehall Colliery, West Bromwich, was fined 10l. and costs for neglecting to ventilate a heading. It appeared that two men were at work, on June 23, at the back of a heading in the colliery of which the defendant was manager, and an explosion occurred, whereby both men were burnt. There was no ventilation whatever provided there for a distance of 24 yards, and probably if there had been the gas would have been cleared, and there would have been no explosion. For the defence it was urged that all reasonable means had been taken for the ventilation of the pit, which had been tried in the morning without sulphur being found, so that the accumulation was unexpected, and that it was a well-known fact that a thick coal rib and pillar pit was liable to be fired if too much air were allowed in it. The Bench did not quite agree with the defendant, considered that no effort whatever had been made to ventilate the pit, and thought they would not be doing their duty unless they imposed a fine of 10l. and costs.

REPORT FROM DERBYSHIRE AND YORKSHIRE.

Nov. 12.—There has been no change whatever in the state of the Iron Trade in North Derbyshire during the past week. The output of pig is increasing more than otherwise, and a good business is being done in manufactured iron. Bessemer steel is not in such good request as it has been, and quite recently the vast works of Cammell and Co., at Penistone, have been standing for several days.

UTILISING WASTE PRODUCTS.—Mr. W. MCADAM, of Glasgow, has patented some improvements in utilising waste products of chemical works for constructing bricks or blocks for building or analogous structural purposes. The feature of novelty which constitutes this invention is the employment of chrome waste, in combination or admixture with the soda waste or potash waste, for the manufacture of bricks or blocks for the building or analogous structural purposes. ——Mr. R. OWEN, of Bowdon, Chester, has patented the manufacture of paint from a black powder obtained by the utilisation of a chemical bye-product or refuse hitherto considered useless, and for improved apparatus connected therewith. This invention consists, first, in the discovery that the by product refuse or residue arising from the manufacture of prussiate of potash, and commonly called by the manufacturers animal charcoal or carbon, contains fine particles in sufficient quantities to enable a good and durable black or bluish paint to be obtained with great economy; and, secondly, in improved apparatus for effecting the separation of the particles. The residue contains ashes or gritty matters and traces of potash enveloping or mixed among the fine particles of carbon or charcoal; and these coarse and fine matters have to be separated by washing or other means for the purpose of enabling the fine particles to be used as a powder, which, when worked up with boiled linseed oil and other matters used by painters, produces a black paint; but bluish shades can be obtained by an admixture of any of the drugs used by dyers for the purpose of having blue tints.

THE IRON AND COAL KINGS OF THE NORTH.

VII.—JOSEPH WHITWELL PEASE, M.P.

The senior member for the southern division of the County of Durham has all his life long been mixed up, more or less prominently, with the iron and coal trades of the North of England, and is at the present moment the head of a firm that has, probably, larger mineral royalties and raises more coal than any other in that important county. His father, Mr. Joseph Pease (who died some three years ago at Darlington), was the second son of Edw. Pease (the founder, along with George Stephenson, of the first passenger railway in England), and was known as the first Quaker member that ever entered the House of Commons. From his father Mr. J. W. Pease, as the eldest son, inherited a large patrimony, in the shape of collieries, ironstone mines, and a large interest in the world-famous engineering works of Robert Stephenson and Co., of Newcastle-on-Tyne, the same works that were founded by George Stephenson, and had the honour of turning out those now classical productions the "Rocket," to which a place has been assigned in the Kensington Museum; and "Locomotion," which has found a resting place, after many years of incessant toil, on a pedestal outside the first station of the first passenger railway in England—the station of the Stockton and Darlington Railway at the latter town.

The early career of the eldest son of the late Joseph Pease is so intimately bound up with that of his father that it is difficult to mark a definite point of divergence. In his youth Mr. J. W. Pease took an active share in the routine of his father's office at Darlington, and was trained to a knowledge, not only of colliery operations in the county of Durham, but also of the conditions affecting the ironstone mining of Cleveland. For many years previous to the decease of his father, in 1872, he was the virtual head of the gigantic undertaking that is known by the dual name of Joseph Pease and Partners, and J. W. Pease and Co., the former being the designation applied to the colliery operations of the firm, and the latter the title under which the extensive ironstone mines of the partnership are carried on. At the present time the firm bearing both of these titles consists of only four active partners, These are Mr. Joseph W. Pease, M.P., his two brothers, Arthur and Edward, and Mr David Dale. Its operations embrace the ironstone mines of Upleatham (the largest mines of their kind in the world), at Marske, in Cleveland, Skiningrove, near Staithes, Tockett's, and Crag Hall; the collieries of Esh, Waterhouse, Adelaide, and Roddymoor—the latter including the Emma, the Job's Hill, the Bowden Close, the Stanley, the Wooley, the Brandon, and the Sunniside pits; the manufacture of fire-bricks and other allied commodities, and the ownership of the Middlesborough estate. Upon these different properties, in the order here indicated, we shall briefly speak.

The Upleatham ironstone mines were the next opened out in the Cleveland district after those of Bolckow and Vaughan at Eston. They were originally projected by the Derwent Iron Company (a concern that subsequently became merged in the Consett Iron Company), in whose hands, however, they did not prosper, and about 1854 they became the property of Mr. Joseph Pease, the father, Mr. J. W. Pease, the son, spoken of in our preceding remarks. These gentlemen had previously acquired a large and valuable interest in the Cleveland district, for about 1829 we find the father becoming the purchaser, along with Messrs. T. Richardson, H. Birkbeck, S. Martin, E. Pease, jun., and F. Gibson, of the land since known as the Middlesborough Estate, and including the greater part of the present site of the town of Middlesborough. In 1853 Mr. J. W. Pease began, along with his father, to open out the Hutton Lowcross, or Codhill Mines, near Guisborough, in Cleveland. At that time the whole district beyond Middlesborough was a *terra incognito*, and one of the first requirements of these new mines was adequate railway facilities. A company, promoted by the Messrs. Pease, was formed in 1851 for the construction of the Middlesborough and Guisborough Railway, with branches to Codhill and Roseberry Topping. This line was ultimately, and very soon after its projection, leased to Messrs. Pease, who guaranteed a settled dividend upon its operations, and from that time till the present it has been one of the most valuable feeders of the Darlington and Stockton branch of the North-Eastern Railway, which, as our readers will be aware, is the most prosperous line in the country.

The Upleatham mines were gradually and largely developed by Mr. Pease and his partners, until they reached an annual production of some 600,000 tons of ironstone per annum, and employed over 650 hands. At this rate of production they are still carried on. They are worked by drifts, and mechanical has recently been substituted for furnace ventilation. From first to last it is calculated that not less than 4,000,000 to 5,000,000 tons of iron ore have been vended from the Upleatham mines, and the royalty is sufficiently large to allow of the present out-put of ore being continued for many years to come. When the British Association visited Newcastle, in 1863, a visit was arranged to these mines, under the personal direction of Mr. Pease; and again, in 1870, when the Mechanical Engineers visited Middlesborough an inspection of the Upleatham mines formed the most interesting part of their programme. The Skiningrove mines, belonging to the same firm, are situated near to the shores of the German Ocean, in the valley from which they take their name, and about 15 miles distance from Middlesborough. During the last three or four years the Skiningrove mines have been developed at an extraordinarily rapid rate, so much so that when the plans for their extension now in progress shall have been completed their yield of ironstone will be about double what it has hitherto been. The Tocketts Mine, near Guisborough, is the most recently developed of all the mines owned by the firm, and has not yet reached the stage of vending ore, but it has been projected on a scale calculated to yield from 200,000 to 300,000 tons per annum when at full work. As for the Crag Hall Mines—the last of the mines belonging to the Messrs. Pease in the Cleveland district—they were originally opened out, about four years ago, by the Saltburn Ironstone Company, of which Mr. Edward Robson, of Middlesborough, and Thomas Vaughan were partners; but at an early period of their operations they committed themselves to a contract to supply the Messrs. Pease with the whole of their ironstone, at a price which two years later (when the labour of getting a ton of ore had advanced from 9d. or 10d. to 1s. 4d., and other charges had gone up in proportion) was found to be ruinously low, and as the contract was one of long standing the mines were sold to the Messrs. Pease for really less than it cost to open them out, it being considered by both sides, when the nature of the contract was taken into account, that the mines were really worth more to the Messrs. Pease than to anyone else. From the whole of their mines in Cleveland the Messrs. Pease are now raising over 1,000,000 tons of ironstone per annum, being more than a sixth part of all the ore produced in the district, but provision is being made, in one way or another, for the nearly doubling this quantity. The whole of the ironstone raised by the Messrs. Pease is sold to other firms, who use it for smelting purposes, the firm with which Mr. J. W. Pease is connected having hitherto kept out of the pig-iron trade. It is worthy of note that one of the first considerations that actuated the present member for South Durham and his late father in becoming owners of ironstone mines was the great opportunities thereby afforded them of assisting other capitalists who might care to come and settle in the Cleveland district; but it is not too much to say that but for the inducements held out by the Messrs. Pease—such as guaranteeing a regular supply of ironstone for a long series of years, at not more than 3s. 6d. per ton—the Cleveland district would not have been developed so rapidly as it has been. Such arrangements as these have in not a few cases been detrimental to Messrs. Pease's own interests, for they have sold many thousands of tons of ironstone at less than the bare cost of production; but what they lost in one way they gained in another, seeing that their railway and landed interests were promoted.

It is considered doubtful whether there are in the whole county of Durham larger coal and coke producers than Mr. J. W. Pease and his partners. There is, at any rate, only one other firm that can rival them in this distinction, and not more than one or two others can claim to come near them. The firm have acquired a large tract of the best part of the South Durham coal field, in three different

parts of that productive district. The Adelaide Colliery, near to Bishop Auckland, chiefly yields household coal of a very superior quality, and was acquired by the father of the present owner about the year 1830. The Roddymoor Collieries are situated near Crook, in the very heart of the coking coal district, and they yield about 1,50 ;,000 tons of coal per annum, the greater portion of which is converted into coke; while the Esh and Waterhouse Collieries, in the Dearness Valley, are also largely productive of an excellent quality of coal, suitable for coking purposes. The Esh Colliery is the newest of the number, having been opened out only about three and a half years ago. It is laid out in harmony with the most advanced knowledge and skill in the science of colliery engineering. Nearly the whole of the coal is converted into coke, in ovens constructed on a principle patented by the Messrs. Breckon and Dixon, whereby the coal is heated both from above and below, instead of, as in the case of the ordinary beehive oven, from above alone. Altogether the Messrs. Pease produce from 600,000 to 700,000 tons of coke per annum. Most of this large quantity is used by the pig-iron manufacturers of Tees-side, but for some years past a large quantity has been supplied to the Barrow Hematite Iron and Steel Company, under a contract of several years duration.

Mr. J. W. Pease has been regarded since he took his seat in the House of Commons, in 1865, as one of the greatest authorities on mining matters. He is the senior representative of the southern division of the County of Durham, and within his large constituency some 17,000,000 tons of coal per annum are raised, being more than the annual production of any other coal field in the United Kingdom, within 3,500,000 tons of the whole coal production of the United States in 1866, and something like 2,000,000 tons more than the total annual production of either France or Belgium in 1872. From his intimate knowledge of the special conditions affecting this important coal field Mr. Pease has several times been required to give evidence before parliamentary committees appointed to deal with questions affecting the coal supply of Great Britain, and his evidence before the Coal Commission of last year showed that no one had more thoroughly mastered the causes and effects of the scarcity and dearness that became so conspicuous in the coal trade during the years 1872-3.

Mr. Pease is a director of the North-Eastern Railway, a county magistrate for Durham, and the holder of numerous other offices of a more or less public and honourable kind in connection with the constituency he represents in Parliament. But he and his brothers have distinguished themselves not more for their commercial enterprise than for their munificent charities. In connection with most of their mines and collieries they have established chapels, schools, and hospitals; to the towns of Middlesborough and Darlington they have voted many thousands of pounds for public purposes, more especially connected with education. The temperance movement has found them warm and devoted friends, so much so that they will not allow a single public-house to be erected in connection with their different properties where it is in their power to prevent it; and of the domiciliary accommodation of their workmen—who number some 8000 to 10,000—it may be truly said that in the North of England, at all events, it is unsurpassed.

IRON.—Mr. F. H. GOSSAGE, of Widnes, manufactureing chemist, has patented some improvements in the manufacture of iron. For the purpose of utilising in the manufacture of iron the substance known as "purple ore," he so far dries the purple ore as to leave about 12 per cent. of water in it, and moulds the same into balls or bricks with the aid of mechanical pressure.

SELF-ACTING CATCHES.—Messrs. TAYLOR, of Barnsley, has patented an invention which relates to improvements in self-acting catches or fastenings for securing the doors of railway and other wagons or trucks, whereby the ordinary studs, cotters, and chains are dispensed with. According to this invention, the self-acting catches consist of a lever catch or pawl moving on a pin carried by a plate or bracket fixed to the body of the wagon. The lever catch is prevented from rising by means of a weighted lever moving on a pin or stud, so arranged as to be readily moved out of and into position for opening or closing and securing the door of the wagon.

DANIEL GEORGE ROUND, Deceased.
NOTICE TO CREDITORS AND OTHERS.

PURSUANT to the 22nd and 23rd Victoria, cap. 35, intituled "An Act to further Amend the Law of Property and to Relieve Trustees," ALL CREDITORS and others having CLAIMS or DEMANDS against or affecting the Estate of DANIEL GEORGE ROUND, late of Portland House, Edgbaston, Birmingham, in the county of Warwick, and of the Hange Colliery and Furnaces, Tividale, Tipton, in the county of Stafford, Esquire, deceased (who died on the 20th day of May, 1874, intestate, and to whose personal Estate and Effects Letters of Administration were, on the 26th day of June, 1874, granted by Her Majesty's Court of Probate out of the District Registry, at Birmingham, to JOSEPH ROUND, of Portland House, Edgbaston, aforesaid, Coal and Iron Master, and BENJAMIN ROUND, of Witley Lodge, Halesowen, in the county of Worcester, Coal and Iron Master, brothers, and two of the next kin of the deceased), are hereby required to SEND IN THEIR CLAIMS OR DEMANDS on or before the 31st day of December, 1874, to the said Administrators, at the offices of the undersigned, their solicitor.

And notice is hereby further given, that after the said 31st day of December, 1874, the said Administrator will proceed to distribute the assets of the said intestate amongst the parties entitled thereto, having regard only to the Debts or Claims of which they shall then have received notice, and that the said Administrators will not be liable for the Assets so distributed, or any part thereof, to any person of whose claim they shall not then have had notice.

WILLIAM S. ALLEN, 35, Waterloo-street, Birmingham
(Solicitor to the said Aduinistrators).

Dated this 10th day of October, 1874.

IN THE GOODS OF NICHOLAS ENNOR, Deceased.
Pursuant to 22 and 23 Vict., cap. 35.

NOTICE IS HEREBY GIVEN, that ALL CREDITORS and PERSONS having any CLAIMS or DEMANDS upon or against the ESTATE of NICHOLAS ENNOR, late of the parish of St. Teath, in the county of Cornwall, Gentleman, deceased, who died on or about the 23rd day of May, 1874, and whose Will was proved on the 15th day of July, 1874, in the Principal Registry of Her Majesty's Court of Probate, by NICHOLAS MALE, of the borough of Camelford, in the said county of Cornwall, Gentleman, one of the Executors in the said Will named (John Hawke, the other Executor therein named, having renounced the probate and execution thereof), are hereby REQUIRED to SEND IN the PARTICULARS of their CLAIMS or DEMANDS to the said Nicholas Male, or to the undersigned, his solicitor, on or before the 24th day of December next.

And notice is hereby also given, that after that day the said Nicholas Male will proceed to distribute the assets of the deceased among the parties entitled thereto, having regard only to the claims of which the said Nicholas Male shall then have notice, and that he will not be liable for the assets or any part thereof so distributed to any person of whose debt or claim he shall not then have had notice.

THOMAS CREBER, of Camelford, Solicitor for the Acting Executor.

Dated this 22nd day of October, 1874.

THE EXECUTORS of a DECEASED GENTLEMAN are DESIROUS of ASCERTAINING where they can obtain INFORMATION respecting any of the FOLLOWING COMPANIES, in which it is believed he held shares:—

COLONIAL GOLD COMPANY (INCORPORATED).
CARADON VALE MINE COMPANY.
HAVAN SILVER-LEAD MINES COMPANY (LIMITED).
NEVADA FREEHOLD PROPERTIES TRUST.
NORWEGIAN COPPER COMPANY (in Liquidation).
HINDOSTAN (SINGHBHOOM) COPPER COMPANY (LIMITED).

Address, Messrs. WALTERS, YOUNG, and Co., 9, New-square, Lincoln's Inn, London.

By the Author of "Mining Fields of the West," &c.
Just published. Fifth Edition. Price Sixpence.

A PAMPHLET, entitled "INVESTMENTS AND SPECULATIONS," containing some valuable Advice to Investors and Speculators in Mines; also Selected Lists of suitable Properties for the immediate Outlay of Capital,

BY CHARLES THOMAS, MINING ENGINEER,
3, GREAT ST. HELEN'S, LONDON.

THE STOCK EXCHANGE OBSERVER.—A Monthly Journal of Mining, Railway, Banking, Assurance, and Joint-stock Enterprise. Annual subscription, post free, 2s. 6d.: single copies, 3d.
Contents: Times' City Editor; Gresham Assurance; Thorp's Gawber Prospectus Bilson and Crump; the Besieged Resident, and Broker Abbott, &c.
Subscriptions must be sent to the Editor, 7, Talbot-court, Gracechurch-street, E.C.

ROMAN GRAVELS.—This mine is paying dividends of 8s. 6d. quarterly, and it is stated that they will soon be augmented to 10s. a share. At 8s. 6d. a share the value is £8 10s. for ten years. As my name has been so freely used in respect to this property, I have addressed the shareholders through your columns this day. I do not shirk the responsibility of my own opinions. Hence I am willing to sell to any approved party the quarterly dividend, at 8s. 6d. a share quarterly, for a period of either five or ten years from this date (settlement quarterly). This will enable anyone possessing shares to realise, and employ the money in other profitable investments, while he secures the excess on 8s. 6d. dividends for the very simple risk of paying any falling off.

R. TREDINNICK, Consulting Mining Engineer.
43, Bishopsgate-street, London, Nov. 6, 1874.

WHEAL MARY ANN MINE, NEAR LISKEARD.
One Mile from Menheniot Station on the Cornwall Railway.
FIRST SALE, TUESDAY AND WEDNESDAY, 24TH AND 25TH NOVEMBER, 1874.

MR. SPRY is instructed to SELL, BY PUBLIC AUCTION, on the above-named days, at One o'clock in the afternoon precisely, on the Trelawny part of Wheal Mary Ann Mine, in the parish of Menheniot, Cornwall, about SEVEN HUNDRED LOTS OF PRIME

MINING PLANT, MACHINERY, AND MATERIALS,
COMPRISING

ONE 50 in. cylinder PUMPING ENGINE, 10 ft. stroke, equal beam, with FOUR 10 ton BOILERS, and fittings complete.
ONE 20 in. cylinder horizontal WINDING ENGINE, 5 ft. stroke, with ONE 8 ton BOILER and CAGE. ONE 7 ton spare BOILER.

Capstan shears.	Shaft gig.
Crusher, with water-wheel attached.	Iron work of 3 balance-bobs.
2 water wheels.	8, 9, 10, 11, and 12 in. wood rods.
Stamps axles and lifters.	Strapping plates, from 5 to 6 in.
8, 9, 10, 11, 12, 13, 14, and 15 in. pit-work.	7 plunger poles, from 8 to 11 in.
180 fms. 14 in. capstan rope.	Staples and glands, flange pins, rod pins.
2 9 ft. shaft sheaves, clacks and seatings.	150 fms. ⅝ in. chains.
	60 fms. ½ in. chain.

Bucket rods, pump rings, bridge rails, rail iron, tram wagons, tram wheels, rolls, punching machine, wood air pipes, ladders, buddles, frames and floors, pulleys, several large wood sheds, carpenters' bench, beam and scales, smiths' bellows, anvil, vice, &c.; also, a very large quantity of useful iron, of various sizes; half and square timber, plank, &c.

Many of the lots are nearly new, and deserve the attention of mine proprietors and agents.

Descriptive catalogues may be obtained of Mr. W. G. NETTLE, the Purser, Liskeard; or of the Auctioneer, Liskeard.

Dated 10th November, 1874.

TO CAPITALISTS, AND OTHERS.

WEIG COLLIERY,
Within two miles from Swansea, on the Old Carmarthen Road.

MR. JOHN M. LEEDER has been instructed by Mr. D. H. Rees TO SELL, BY PUBLIC AUCTION, at the Oxford Chambers, Oxford-street, Swansea, on Wednesday, November 25, 1874, all that above-named

COLLIERY,

Held on lease fer an unexpired term of 15 years, from June, 1874, granted by Sir John Armine Morris to the said D. H. Rees, at a dead rent of £150 per annum, and 6d. per ton (of 22½ cwts.) royalty.

The property contains THREE VALUABLE SEAMS of BITUMINOUS or HOUSE COAL—viz., the Five-feet Vein, 15 acres of which is unworked; the Six-feet ditto, 20 acres of which is unworked; and the Three-feet Vein, 50 acres of which is unworked.

Together with the Lease will be sold the PLANT and MACHINERY, comprising a 13-horse power horizontal STEAM ENGINE, reversable motion, with egg-end BOILER complete; 15-horse power ditto, egg-end BOILER, drum 6 ft. diameter, V bob, with crank and rod complete; 4 water wagons in good condition; about 10 tons of bridge rails, 14 lbs.; 16 coal trams, to carry from 5 to 9 cwts. each; 2 iron pit carriages; 2 weighing machines; crab winch, sheaves, chains, blocks, large quantity of sleepers, smiths' tools, grindstone, wire ropes, scrap iron, about 1200 ft. iron water piping from ¾ in. to 1½ in., wood erection used as smiths' and carpenters' workshop, wood erection used as office, &c., &c.

Sale to commence at Twelve o'clock at noon.

For further particulars apply to the Auctioneer, at his offices, Oxford Chambers, Oxford-street, Swansea.

WHEAL OSBORNE, CROWAN, CORNWALL.
UNRESERVED SALE OF PUMPING ENGINE, BOILER, STAMPS AXLE, &c.

FOR SALE, BY TENDER, IN FOUR LOTS.—
LOT 1.—ONE 40 in. cylinder PUMPING ENGINE, equal beam.
LOT 2.—10 ton BOILER.
LOT 3.—14 in. cylinder ENGINE.
LOT 4.—12 heads STAMPS AXLE.

The Tenders will be opened by the Committee of the above-named Mine, at Abraham's Hotel, Camborne, on Tuesday, the 17th November, at half-past Two P.M., when the highest bidder will be the purchaser.

NANTYCRIA MINES, CARDIGANSHIRE.

FOR SALE, the VALUABLE MINERALS under a TRACT OF LAND containing about SEVEN HUNDRED ACRES, situate in the parish of Llanbadarn Fawr, in the county of Cardigan, known as

NANTYCRIA LEAD AND ZINC MINES,

Held upon lease for a term of which about 26 years are unexpired, at a rental of £1 per annum, and a royalty of 1-15th of all minerals gotten, the minimum royalty being £80 per annum, together with the SHOPS, DORMITORIES, MACHINERY, PUMPS, &c., necessary for working the same, all in good working order.

There are three large reservoirs on the property, containing more than ample water to work the machinery all the year round. There are two shafts sunk on the property, and a good course of ore laid open.

TO BE SOLD BY PRIVATE TREATY.

Apply to Messrs. C. C. ELLIS and Co., Solicitors, 19, St. Swithins-lane, London, E.C.

TO CAPITALISTS.

FOR SALE,—IN NEW SOUTH WALES,
1340 ACRES TIN LANDS,—Lode and Stream.
2430 ACRES COPPER LANDS (portions freehold).
2112 ACRES IRON AND COAL.
2250 ACRES COAL (on sea coast).
4000 ACRES COAL (inland, on railway line).
20 ACRES KEROSENE SHALE.
200 ACRES PLUMBAGO.
105 ACRES FREEHOLD GOLD DEPOSIT (Brown's Creek).

The above properties are all first-class, and on or near railway lines or water carriage, and are the very "pick" of their respective districts (being some of the first selections made).

Liberal terms, either as to purchase or working on royalty, will be given to parties able to carry out arrangements.

Apply to the owner,—
CHARLES W. WEEKES, Circular Quay, Sydney, N.S.W.

MINING MACHINERY AND MATERIALS FOR SALE, comprising STEAM ENGINES, WATER WHEELS, PITWORK, and other MINE MATERIAL.—Apply to—
W TREGAY, REDRUTH.

COLLIERY FOR SALE, on advantageous terms. The LEASE of a VALUABLE COAL PROPERTY in SOUTH WALES.
Address, "M. W.," care of Messrs. Gardner and Co., 31, St. Swithin's-lane, E.C.

CORNISH PUMPING ENGINES FOR SALE, VIZ.:—
ONE 60 in. CYLINDER, 9 ft. stroke; with ONE BOILER.
ONE 40 in. ditto, 9 ft. stroke; with or without BOILER.
These engines are in first-class condition.
Apply to JOHN HOCKING and SON, Engineers, Trewirgie-terrace, Redruth, Cornwall.

TWO 14-horse power TRACTION, COLLIERY WINDING, or PLOUGHING ENGINES FOR SALE, in Midland Counties.
Apply to Mr. T. FENWICK, Iron Merchant, Middlesborough.

ON SALE,—MASSIVE CRUSHING MILL, with two pairs of 24-in. rolls, in cast metal frames.
Also, 250 yards of 1½ in. diameter IRON WIRE WINDING ROPE.
Address, "X. Y. Z.," MINING JOURNAL Office, 26, Fleet-street, London.

FOR SALE, a HORIZONTAL HIGH-PRESSURE ENGINE, 13½ in. cylinder, 24 in. stroke; HORIZONTAL HIGH-PRESSURE ENGINE, 14 in. cylinder, 30 in. stroke; and a PAIR of GUN-METAL PUMPS, 6 in. diameter, 12 in. stroke; also, a TUBULAR BOILER, up to 60-horse power, of Yorkshire plates throughout.
Apply to W. T. HENDRY and Co., 2, Wilson-street, London E.C.

FOR SALE, CORNISH ROTARY ENGINE, two fly-wheels, about 20 tons; TWO BOILERS, 20 tons; THREE STAMPS AXLES, five cams to the round, two sets complete, with lifters, &c., for stamping. To be sold together or separately.
Apply to Mr. HOWARD, Auctioneer, St. Columb, Cornwall.

FOR SALE, ONE 60 in. cylinder PUMPING ENGINE, 9 ft. stroke, equal beam, with ONE BOILER, 10 tons; ONE 40 in. cylinder PUMPING ENGINE, 9 ft. stroke in cylinder, by 8 ft. in shaft, with ONE BOILER, 10 tons.
Apply to Mr. JOHN WATSON, 9, Gracechurch-street, London, E.C.

TO CAPITALISTS DESIROUS OF JOINING OTHERS.
NO PROMOTION MONEY OR PREMIUMS.

ATTENTION having for some time past been directed to various PIECES of MINERAL GROUND in CORNWALL, of certified value and lucrative capacity, CAPITALISTS are invited to JOIN OTHERS in their development. The difference in value is obviously immense between the zero of inaction and the vitality of dormant interests, and the prosperity to which, by means of vigorous development, such sound undertakings as are now under consideration may attain, will accrue to the parties entitled, without premium or promotion money. The object now being to, if possible, divert capital into profitable home channels for the benefit of investors and the county, there being thousands of miners requiring work at home, and others waiting to return from all parts of the world on a resumption of home industry.

The first valuable opportunity to be submitted is a Silver Lead Mine, in 2048 shares, to be worked on the Cost-Book System, with quarterly meetings on the mine, and an Office of Reference in London.

Address, "Cornubiensis," MINING JOURNAL Office, 26, Fleet street, E.C.

BARYTES (SULPHATE OF), CRUDE OR GROUND FOR SALE.
Apply to FORCE CRAG LEAD AND BARYTES MINING COMPANY, 69, Close, Newcastle-on-Tyne.

THE CHAPEL HOUSE COLLIERY COMPANY
(LIMITED).

NOTICE IS HEREBY GIVEN, that the THIRD QUARTERLY DIVIDEND, at the rate of FIFTEEN PER CENT. PER ANNUM for the quarter ending 30th September last, will be PAYABLE at the Imperial Bank, Lothbury, E.C., on and after the 16th inst.

By order,
W. H. HARRISON, Secretary.
1, Palmerston Buildings, London, E.C.

ISSUE OF £300,000, THE BALANCE OF THE SHARE CAPITAL OF THE

BANBURY AND CHELTENHAM DIRECT RAILWAY COMPANY.

CLOSING OF THE LISTS.

NOTICE IS HEREBY GIVEN, that the SUBSCRIPTION LISTS for the above will be CLOSED on TUESDAY NEXT, the 17th instant, for LONDON, and on WEDNESDAY NEXT, the 18th instant, for COUNTRY APPLICATIONS.

By Order of the Board,
RICHARD B. LOOKER, Secretary.
No. 3, Victoria-street, Wesminster, S.W., 12th November, 1874.

FIRST ISSUE OF 2000 SHARES, OF WHICH 235 HAVE BEEN APPLIED FOR AND ALLOTTED TO THE VENDORS.

THE GREAT RAKE LEAD MINING COMPANY
(LIMITED).

Registered under the Companies Act, 1862,
whereby the liability of the shareholders is limited to the amount of their shares.

Capital £25,000, in 25,000 Shares of £1 each.

PAYABLE—5s. per share on application; 5s. on allotment; 5s. in two months; and 5s. in four months after allotment.

BANKERS.
W. and S. EVANS and CO., Derby.
SOLICITOR.
JOSEPH STONE, Esq., Wirksworth.
AUDITOR.
JOHN LEWIS, Esq., A.I.A., Public Accountant, Birmingham.
SECRETARY.
CHARLES PARKER, 3, Madeley-street, Derby.
OFFICES,—BANK CHAMBERS, TENNANT STREET, DERBY.

THE ST. DAVID'S LEAD MINING COMPANY
(LIMITED).

Incorporated under the Limited Liability Acts, 1862 and 1867, by which the liability of the shareholders is limited to the amount of their shares.

Capital £10,000, in 10,000 Shares of £1 each.

THE PRESENT ISSUE IS LIMITED TO 3000 SHARES.

Payments—10s. on application; and 10s. on allotment.

DIRECTORS.
MR. SAMUEL AMPHLET, Bayhurst, Hagley Road, Edgbaston.—CHAIRMAN.
MR. WILLIAM RICHARDSON, Balsall Heath.
MR. WILLIAM SUNDERLAND, Edgbaston.
MR. JOHN WALFORD, Edgbaston.
} Directors of the South Prince Patrick Lead Mining Company (Limited).

BANKERS.
LLOYDS' BANKING COMPANY (LIMITED), Ann-street, Birmingham.
OFFICES,—47, ANN STREET, BIRMINGHAM.
SECRETARY (pro tem.)—MR. HENRY HOWELL.

This company has been formed for the purpose of acquiring and working the St. David's Lead Mines, which are situated a little more than a mile from Holywell, in Flintshire, in a mineral district highly famed from the well-attested fact that millions of pounds sterling have been realised in profits by working the lead mines in the limestone formation wherein is situate the St. David's sett.

The directors, before inviting the public to invest, decided to make a trial of the property, so as to be assured that there was a probability of a success, and time has been allowed by the vendor for that purpose, the result of the operations being very satisfactory from the fact that a lode is now being worked and lead raised, which it is expected will of itself yield enough ore to make a profit.

There are three other very strong and well known lodes, running east and west through the sett. These lodes have already yielded many thousands tons of lead to the east, and it is expected they will also be productive in this sett.

The work already done is as follows:—

A shaft about 30 yards deep is sunk into a proodutive north and south lode.
A shaft 40 yards deep sunk on a parallel lode.
A shaft, with an excellent whimsey on it (all in first rate order), 80 yards deep, sunk on the renowned Milwr lode, which has made large profits to the east of this seti.
Another shaft is sunk to a depth of 40 yards, near to the junction of two main east and west lodes with a north and south lode. This will be another trial to be continued in further developing the mine, and Capt. Thomas Pierce and Capt. John Jones, of the South Prince Patrick Mine, say it will be the best trial in Flintshire.

It is also known that there is a flat near to the whim-shaft, from which some lead has been got, and it is intended to open it in proper course, as these flats sometimes yield an enormous quantity of lead from a comparatively small area.

Another important feature is that there are swallows in the ground below 80 yards, which will take the water, and there is also plenty of surface water for washing and dressing the ore.

About 12 months since some of the directors of this company had the pleasure of bringing out another mine—viz., the South Prince Patrick (also near Holywell), which has proved so successful an enterprise as to be already in the Dividend List, and the shares are now selling at about 100 per cent. premium. It is believed the prospects of the St. David's Mines are even greater than those of the South Prince Patrick were at that time, inasmuch as one only of the lead-bearing lodes discovered will, it is believed, give profits on capital invested, and there can be no doubt that if, on further working the east and west lodes show anything like what they have done to the east of the sett, the St. David's shares will soon command a high premium.

As a portion of the required capital is already privately subscribed, only 3000 shares are now offered for public subscription.

The only agreement entered into is dated Aug. 15th, 1874, between Henry Sunderland of the one part, and Henry Howell, of 47, Ann-street, Birmingham, on behalf of the company of the other part, whereby the said Henry Sunderland agreed to sell his interest in the said mines for the sum of £6000, payable £1300 in cash and £4700 in fully paid-up shares of the company.

Samples of the ore, and a plan of the property, can be seen at the office of the company, where copies of the captains' reports and all other repuisite information may be obtained.

Applications for shares should be made to the Secretary of the company, 47, Ann-street, Birmingham.

FORM OF APPLICATION FOR SHARES.
To the Directors of the St. David's Lead Mining Company (Limited).

GENTLEMEN,—Having paid to the sum of £ , being a deposit of 10s. per share on shares in the above company, I request that you will allot to me that number of shares, and I hereby agree to accept such shares, or any less number you may allot me, on the conditions stated in the prospectus, and subject to the Memorandum of Association of the company.

Name (in full) .....
Address .....
Profession or business .....
Date ..... Usual signature .....

THE ST. DAVID'S LEAD MINING COMPANY
(LIMITED).

Notice is hereby given, that THE SUBSCRIPTION LISTS for the above will be CLOSED on FRIDAY NEXT, the 20th instant.

HENRY HOWELL, Secretary.
47, Ann-street, Birmingham, November 13, 1874.

MR. THORMAN WOODWARD,
STOCK AND SHARE BROKER, TRURO, CORNWALL.

MR. TIMOTHY HUGHES,
59, SEEL STREET, LIVERPOOL.

The Registered Office of the PRINCE PATRICK, GROSVENOR, WEST BRYN CELYN, and GREAT EAST FOXDALE LEAD MINING COMPANIES (LIMITED).
Full information respecting these Mines forwarded on application.

RELIABLE INFORMATION given respecting Mines in the Isle of Man, Flintshire, and the neighbouring districts.

GROSVENOR, ENTWISLE, AND CO.
(LATE GROSVENOR AND CO.),
STOCK AND SHARE BROKERS
88, PORTLAND STREET, MANCHESTER.

MESSRS. STANLEY AND COMPANY,
MINING SHARE BROKERS AND FINANCIAL AGENTS,
22, COMMERCIAL STREET, LEEDS.

MR. R. PERCY ROBERTS,
FINANCIAL AGENT,
60, ENGLISH STREET, CARLISLE.

JOHN PETHERICK, M.E. (from Camborne, Cornwall), having had nearly Ten Years' experience in the different Mining Districts of Mexico, OFFERS his SERVICES to the mining world to SURVEY and FAITHFULLY REPORT on MINING PROPERTY in any part of this REPUBLIC.
Pachuca, Mexico, June 13, 1874.

CAPTAIN ABSALOM FRANCIS,
MINING AGENT, ENGINEER, AND SURVEYOR.
GOGINAN, ABERYSTWITH.

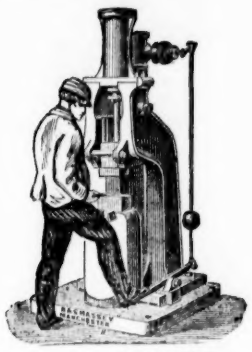
B. & S. MASSEY, OPENSHAW, MANCHESTER.

PRIZE MEDALS AWARDED:—Paris, 1867 Havre, 1868; Highland Society, 1870; Liverpool, 1871; Moscow, 1872; Vienna, 1873.

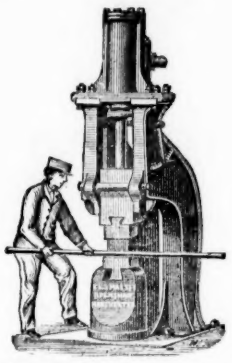
Patentees and Makers of **Double** and **Single-acting STEAM HAMMERS** of all sizes, from ½ **cwt.** to **20 tons,** with self-acting or hand motions, in either case giving a perfectly **DEAD BLOW,** while the former may be worked by hand when desired. **Large Hammers,** with **Improved Framing,** in **Cast** or **Wrought Iron. Small Hammers,** working up to 500 blows per minute, in some cases being **worked by the Foot** of the Smith, and not requiring any separate Driver.

SPECIAL STEAM STAMPS, of great importance for Forging, Stamping, Punching, Bolt-making, Bending, &c.

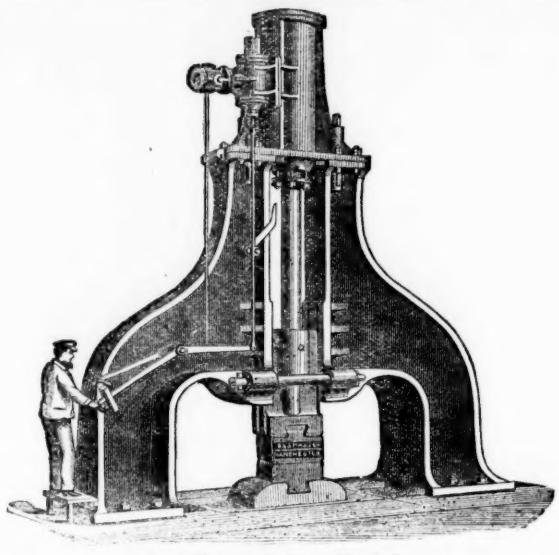
STEAM HAMMERS for Engineers, Machinists, Shipbuilders, Steel Tilters, Millwrights, Coppersmiths, Railway Carriage and Wagon Builders, Colliery Proprietors, Ship Smiths, Bolt Makers, Cutlers, File Makers, Spindle and Flyer Makers, Spade Makers, Locomotive and other Wheel Makers, &c.; also for Use in Repairing Smithies of Mills and Works of all kinds; for straightening Bars, bending Cranks, breaking Pig-iron, &c.



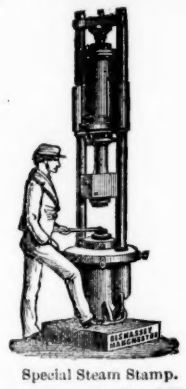
Small Hammer with Foot Motion.



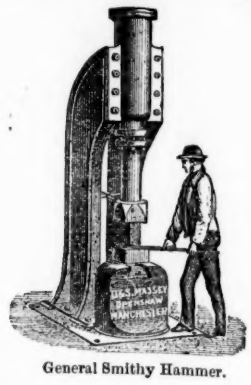
General Smithy Hammer.



Steam Hammer for Heavy Forging.



Special Steam Stamp.



General Smithy Hammer.

From 60 to 100 Steam Hammers and Steam Stamps may usually be seen in construction at the Works.

ROBERT DAGLISH & CO.,

Boiler Makers, Engineers and Ironfounders, &c.,

ST. HELEN'S FOUNDRY, LANCASHIRE,

MANUFACTURERS OF

ROBERTSON'S PATENT

VALVELESS ENGINES, AIR-COMPRESSORS FOR COLLIERIES AND PUMPS,

With and without Condensing Apparatus.

CHEMICAL PLANT OF EVERY DESCRIPTION.

ROLLING MILL ENGINES, GEARING, &c.,

GLASS MACHINERY.

MINING MACHINERY FOR COPPER, COAL, GOLD, AND SALT.

J. W. STEAD,

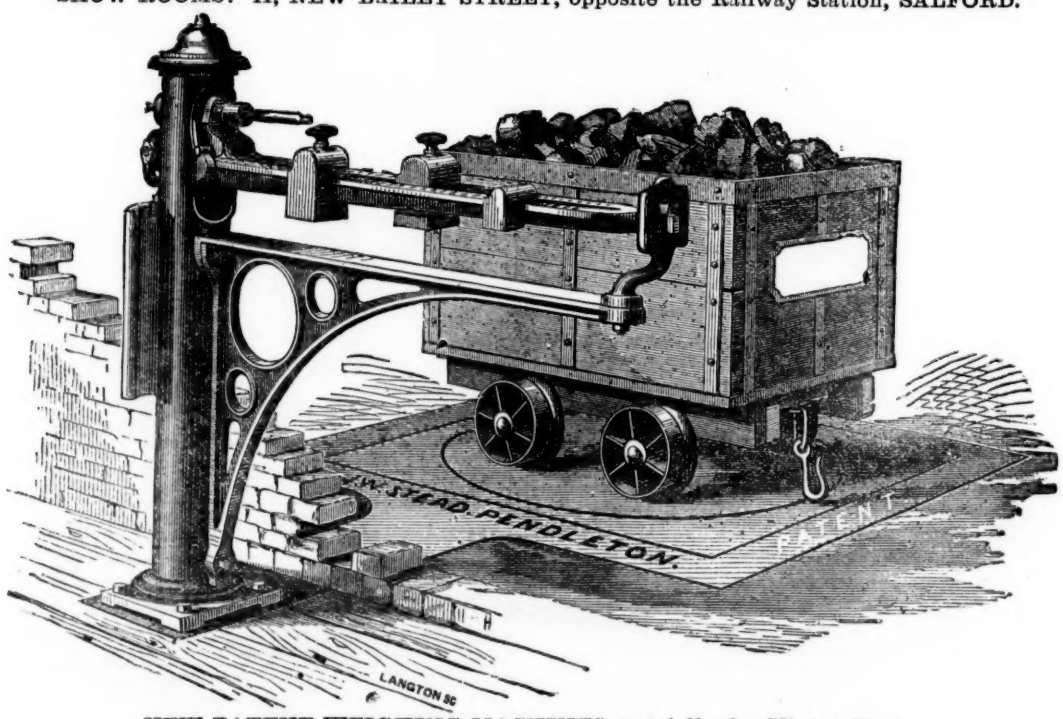
(Late of the Firm of HODGSON and STEAD),

MANUFACTURER OF WEIGHING MACHINES, WEIGHBRIDGES,

AND ALL DESCRIPTIONS OF WEIGHING PLANT FOR ALL NATIONS.

GLOBE FOUNDRY, PENDLETON, MANCHESTER.

SHOW ROOMS:—11, NEW BAILEY STREET, opposite the Railway Station, SALFORD.



NEW PATENT WEIGHING MACHINES, specially for Mining Uses.

Globe Foundry is One Minute's Walk from the Pendleton 'Bus Office, and Four Minutes' from Pendleton Railway Station.

PERFORATED PLATES OF IRON, STEEL, COPPER, BRASS, ZINC, AND TIN,

For SIFTING and SEPARATING APPARATUSES, KILNS, LATTICES, BUILDING PURPOSES, GARDEN FURNITURES, &c., after any pattern perforated, are furnished as a speciality since 1857, by

The HUMBOLDT ENGINE-WORKS, in KALK, near Deutz-on-the-Rhine.

DUNCANS' LUBRICATING OILS

WARRANTED FREE FROM GUMMINESS.

PALE INSTAR SPERM, OLIVE, and LARD, from 2s. 4d to 9d.
"DON ECONOMIC" LUBRICATING OIL, from 2s. 3d. to d. per gallon, according to quantity.

Mr. ALFRED HEWLETT, Wigan Coal and Iron Company, says—"I have used the Don Oil for nearly two years, and find it to answer exceedingly well for purposes of lubrication."

Consignees put on most favourable terms.

DUNCAN BROTHERS, SOLE MANUFACTURERS,
2, BLOOMFIELD STREET, LONDON, E.C.

MINERS' LAMP AND GAUZE MANUFACTORY,

Established Half-a-century.

JOSH. COOKE AND CO.

J.C B TRADE MARK

SAFETY LAMPS

MADE to DRAWING, DESCRIPTION, or MODEL. Illustrated Price Lists free, by post or otherwise.

VALUABLE TESTIMONIALS FROM EMINENT FIRMS.

MIDLAND DAVY LAMP WORKS,
20, &c., LOWER LAWLEY STREET,
BIRMINGHAM.

Specimens may be seen at the INTERNATIONAL EXHIBITION, Kensington Gore, CLASS XIV., DIVISION 3, No. 6905.

THOMAS TURTON AND SONS,

MANUFACTURERS OF
CAST STEEL for PUNCHES, TAPS, and DIES
TURNING TOOLS, CHISELS, &c.
CAST STEEL PISTON RODS, CRANK PINS, CONNECTING RODS, STRAIGHT and CRANK AXLES, SHAFTS and FORGINGS of EVERY DESCRIPTION.

DOUBLE SHEAR STEEL, BLISTER STEEL, SPRING STEEL, GERMAN STEEL,
FILES MARKED T. TURTON
EDGE TOOLS MARKED WM. GREAVES & SON

Locomotive Engine, Railway Carriage and Wagon Springs and Buffers.

SHEAF WORKS AND SPRING WORKS, SHEFFIELD.
LONDON WAREHOUSE, 35, QUEEN STREET, CANNON STREET, CITY, E.C.
Where the largest stock of steel, files, tools, &c., may be selected from.

JOHN AND EDWIN WRIGHT,

PATENTEES.
(ESTABLISHED 1770.)
MANUFACTURERS OF EVERY DESCRIPTION OF IMPROVED
PATENT FLAT AND ROUND WIRE ROPES
from the very best quality of charcoal iron and steel wire.
PATENT FLAT AND ROUND HEMP ROPES,
SHIPS' RIGGING, SIGNAL AND FENCING STRAND, LIGHTNING CONDUCTORS, STEAM PLOUGH ROPES (made from Webster and Horsfall's patent steel wire), HEMP, FLAX, ENGINE YARN, COTTON WASTE TARPAULING, OIL SHEETS, BRATTICE CLOTHS, &c.

UNIVERSE WORKS, MILLWALL, POPLAR, LONDON.
UNIVERSE WORKS, GARRISON STREET, BIRMINGHAM.
CITY OFFICE, No. 5, LEADENHALL STREET, LONDON, E.

DYNAMITE

FOR BLASTING PURPOSES, can now be supplied in packages, containing 50 lbs. each, for export to any part of the World.

Nobel's Dynamite, or Safety Giant Blasting Powder,

Is the CHEAPEST and MOST POWERFUL EXPLOSIVE for every kind of MINING and QUARRYING OPERATIONS; for blasting in hard or soft, wet or dry ROCKS; for clearing land of TREE ROOTS and BOULDER STONES; for rending massive BLOCKS of METAL; for SUBAQUEOUS and TORPEDO purposes; and for recovering or clearing away of WRECKS, &c.

ITS SAFETY is evidenced by the total ABSENCE OF ACCIDENTS in transit and storage; it is insensible to heavy shocks, its GIANT POWER being only fully developed when fired with a powerful percussion detonator, and hence its great safety.

As a **SUBSTITUTE FOR GUNPOWDER** its advantages are the GREAT SAVING OF LABOUR, rapidity and INCREASE OF WORK done, FEWER and smaller BORE-HOLES required, greater depth blasted, safety in use, NO DANGER FROM TAMPING, absence of smoke, unaffected by damp, &c.

For information, apply to the—

BRITISH DYNAMITE COMPANY (LIMITED), GLASGOW;

OR AT THE

London Export Office, 85, GRACECHURCH STREET, LONDON, E.C.

THE DARLINGTON ROCK BORER.

PATENTED IN GREAT BRITAIN, PRUSSIA, FRANCE, AND VARIOUS CONTINENTAL COUNTRIES.

Makes 300 to 1000 Blows per Minute, as may be required, without Valve or Complicated Gear.

DRIVEN WITH STEAM OR COMPRESSED AIR.

SPECIALLY SUITABLE FOR RAILWAY, QUARRY, AND MINE WORK.

For price and particulars, apply to—

JOHN DARLINGTON,

2, COLEMAN STREET BUILDINGS, MOORGATE STREET, LONDON.

THE "CRANSTON" ROCK DRILL,

Suitable for QUARRYING and OPEN-CUTTING, SINKING SHAFTS, SUBMARINE BLASTING, TUNNELLING, DRIVING ADITS, &c., is now in successful operation in various parts of the World.

Has over SEVEN HUNDRED STROKES PER MINUTE, with a blow of 200 lbs. each stroke.

BORES GRANITE 12 inches per minute.

STEAM BOILERS; AIR COMPRESSORS; BLOWING, PUMPING, WINDING, and all other MINING MACHINERY supplied.

BEST IRON and FLEXIBLE TUBING supplied at lowest rates.

For prices, estimates, and other particulars, apply to—

J. G. CRANSTON, PATENTEE, 22, GREY STREET,

NEWCASTLE-ON-TYNE.

MINING MACHINERY AND TOOLS.

THE TUCKINGMILL FOUNDRY COMPANY,

85, GRACECHURCH STREET, LONDON, E.C. WORKS: TUCKINGMILL.

MANUFACTURERS of every description of MINING MACHINERY, TOOLS, MILLWORK, PUMPING, WINDING, & STAMPING ENGINES.

SOLE MAKERS OF

BORLASE'S PATENT ORE-DRESSING MACHINES AND PULVERISERS.

PRICE LISTS CAN BE HAD ON APPLICATION, AND

SPECIAL QUOTATIONS WILL BE GIVEN UPON INDENTS AND SPECIFICATIONS.

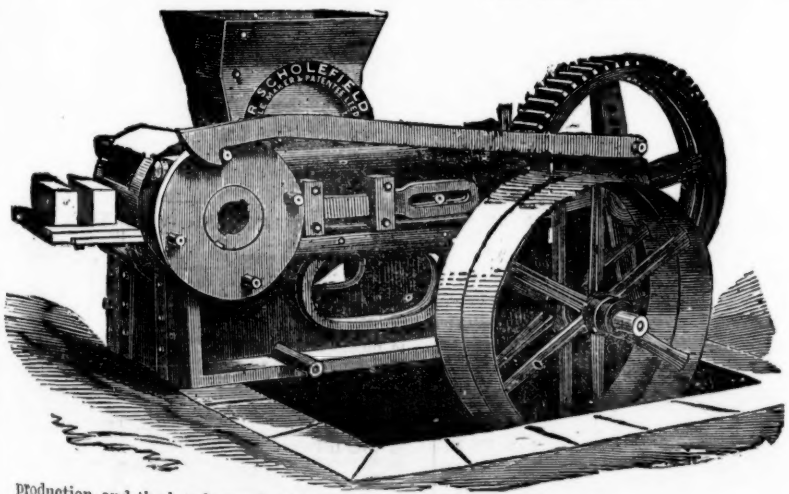
TUCKINGMILL FOUNDRY AND ROSEWORTHY HAMMER MILLS

TUCKINGMILL, CORNWALL, AND 85, GRACECHURCH STREET, LONDON, E.C.

R. SCHOLEFIELD'S

LATEST PATENT BRICK-MAKING MACHINE.

PATENTED 1873.



R. S. begs to call the attention of all Colliery Owners in particular to his PATENT SEMI-DRY BRICK MACHINE, and the economical method of making bricks by his patent machinery from the refuse that is taken from the pits during the process of coal-getting, which, instead of storing at the pit's mouth (and making acres of valuable land useless), is at once made into bricks, at a very small cost, by R. S.'s Patent Brick-making Machinery. If the material is got from the pit hill, the following is about the cost of production, and the hands required to make 10,000 pressed bricks per day:—

	£	s	d
2 men digging, each 4s. per day	£0	8	0
1 man grinding, 4s. 6d. per day	0	4	6
1 boy taking off bricks from machine, and placing them in barrow ready for the kiln, 2s. per day	0	2	0
1 boy greasing, 1s. 6d. per day	0	1	6
1 engine-man, 5s. per day	0	5	0
1 man wheeling bricks from machine to kiln, 4s. per day	0	4	0
Total cost of making 10,000 pressed bricks	£1	5	0, or 2s. 6d. per 1000.

(SETTING AND BURNING SAME PRICE AS HAND-MADE BRICKS.)

N.B.—Where the material can be used as it comes from the pit, the cost will be reduced in digging.

As the above Machinery is particularly adapted for the using up of shale, bind, &c., it will be to the advantage of all Colliery Owners to adopt the use of the said Brick-making Machinery.

THE MACHINES CAN BE SEEN IN OPERATION AT THE WORKS OF THE SOLE MAKER AND PATENTEE DAILY.

COLUMBA STREET, WOODHOUSE LANE, LEEDS.

LOCOMOTIVE TANK ENGINES

FOR MAIN LINE TRAFFIC, SHORT LINES, COLLIERIES, CONTRACTORS, IRONWORKS, MANUFACTORIES, &c., from a superior specification, equal to their first-class Railway Engines, and specially adapted to sharpcurves and heavy gradients, may always be had at a short notice from—

MESSRS. BLACK, HAWTHORN, AND CO.,
LOCOMOTIVE, MARINE, AND STATIONARY ENGINE WORKS,
GATESHEAD-ON-TYNE.

TYNE CAST MALLEABLE IRON COMPANY,

WORKS: TEAMS, GATESHEAD;
LONDON OFFICES: CHANDOS CHAMBERS, ADELPHI, W.C

MANUFACTURERS OF ALL DESCRIPTIONS OF
MALLEABLE IRON CASTINGS, delivered in London, carriage free.

RAILWAY CARRIAGE COMPANY (LIMITED).—

ESTABLISHED 1847.
OLDBURY WORKS, NEAR BIRMINGHAM.

MANUFACTURERS of RAILWAY CARRIAGES and WAGONS, and EVERY DESCRIPTION of IRONWORK.

Passenger carriages and wagons built, either for cash or for payment, over a period of years.

RAILWAY WAGONS FOR HIRE.

CHIEF OFFICES,—OLDBURY WORKS, NEAR BIRMINGHAM.
LONDON OFFICES,—7, GREAT WINCHESTER STREET BUILDINGS.

THE BIRMINGHAM WAGON COMPANY (LIMITED)

MANUFACTURE RAILWAY WAGONS of EVERY DESCRIPTION, for HIRE and SALE, by immediate or deferred payments. They have also wagons for hire capable of carrying 6, 8, and 10 tons, part of which are constructed specially for shipping purposes. Wagons in working order maintained by contract.

EDMUND FOWLER, Sec.

WAGON WORKS,—SMETHWICK, BIRMINGHAM.

*** Loans received on Debenture; particulars on application.

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ONE FLY WHEEL, 16 ft. diameter, 6½ tons weight.
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ONE VERTICAL BOILER, 24 ft. high 7 ft. diameter—all Low Moor plates.
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THE MINING SHARE LIST.

BRITISH DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Clos. Pr.	Total divs.	Per share.	Last paid
1500	Alderley Edge, c, Cheshire*	10 0 0	—		12 1 8	0 5 0	Apr. 1874
20000	Allt-y-Crib, l, Talybont*	2 0 0	—		0 0 6	0 0 6	Feb. 1873
30000	Bampfylde, c, i, mn., Devon*	1 0 0	5⅝	4½ 5	0 2 0	0 2 0	June 1873
5500	Blaen Caelan, s-l, Cardigan* (£4 sh.)	3 10 0	—		0 10 9	—	—
200	Botallack, t, c, St. Just§	116 5 0	42½	47½ 50	619 15 0	5 0 0	Aug. 1872
10000	Bronfloyd,*† s-l, Cardigan	1 7 6	—		2 2 0	0 0 6	Jan. 1872
4000	Brookwood, c, Buckfastleigh	1 16 0	4½	4½ 5	2 18 6	0 4 0	July 1874
3348	Cargoll, s-l, Newlyn§	5 4 5	1⅞	1⅝ 1¾	4 16 3	0 12 6	Oct. 1872
6400	Cashwell, l, Cumberland*	2 10 0	—		1 6 6	0 2 6	Aug. 1873
1000	Carn Brea, c, t, Illogan†	35 0 0	57½	55 57½	308 0 0	1 0 0	Feb. 1874
6000	Cath. & Jane, l,* Penrhyndendraeth	5 0 0	—		0 7 6	0 7 6	June 1873
2450	Cook's Kitchen, t, Illogan†§	20 4 9	10	9 10	11 17 0	0 7 6	Jan. 1873
10240	Devon Gt. Consols, c, Tavistock†*§	1 0 0	1½	1½ 2	116 10 0	0 12 0	May 1872
4296	Dolcoath, c, t, Camborne	10 14 10	49	48 50	105 4 2	0 10 0	Oct. 1874
6500	Drake Walls, t, c, Calstock	5 0 0	—		0 2 0	0 2 0	July 1874
10000	East Balleswidden, t, Sancreed*	1 0 0	—		0 2 11	0 0 5	Feb. 1874
6144	East Caradon, c, St. Cleer†	2 14 6	1	1 1¼	14 19 0	0 2 0	Oct. 1872
300	East Darren, l, Cardiganshire	32 0 0	—		224 10 0	1 0 0	Oct. 1874
6400	East Pool, t, c, Illogan	0 9 9	8½	8 8½	13 11 3	0 2 6	May 1873
1906	East Wheal Lovell, t, Wendron*‡	5 19 0	11	10 12	20 7 6	0 7 6	Oct. 1874
5000	Exmouth, s-l, Christow	0 7 6	—		0 1 0	0 1 0	May 1873
2800	Foxdale, l, Isle of Man*†	25 0 0	—		80 15 0	0 10 0	Sept. 1872
40000	Glasgow Cara., c* [30,000 £1 p., 10,000 15s. p.]		1½	1⅜ 1½	0 5 10	0 1 0	Aug. 1874
15000	Great Laxey, l, Isle of Man*	4 0 0	12	11 12	17 3 0	0 6 0	Oct. 1874
25000	Great West Van, l, Cardigan*	2 0 0	—	¾ 1	0 2 0	0 1 0	Aug. 1874
5908	Great Wheal Vor, t, c, Helston†§	40 15 0	—		15 19 6	0 2 6	June 1872
6400	Green Hurth, l, Durham*	0 6 0	5¼	5 5½	1 12 0	0 4 0	Oct. 1874
20000	Grogwinion, l, Cardigan*	2 0 0	3	3 3½	0 0 8	0 0 8	July 1874
1024	Herodsfoot, l, near Liskeard†	8 10 0	3½	3 3¼	62 5 0	0 15 0	Oct. 1872
18000	Hingston Downs, c, Calstock*† (£1 sh.)	2 5 0	1¼	1⅝ 1⅞	4 3 0	0 5 0	Dec. 1872
25000	Killaloe, sl, Tipperary	1 0 0	—		0 3 11½	0 0 6	Mar. 1873
400	Lisburne, l, Cardiganshire	18 15 0	—		564 10 0	1 0 0	July 1874
5120	Lovell, t, Wendron	0 10 0	—		0 17 6	0 1 6	Jan. 1874
11000	Melindur Valley, l, Cardigan*	3 0 0	3	3 3⅛	0 3 7	0 3 7	June 1874
9000	Minera Mining Co., l, Wrexham*	5 0 0	20	15 20	63 15 2	0 2 0	Nov. 1874
20000	Mining Co. of Ireland, cl, c, l*	7 0 0	—		0 8 0	0 3 6	July 1872
12000	North Hendre, l, Wales	2 10 0	—		0 17 6	0 2 6	Oct. 1874
2000	North Levant, t, c, St. Just§	12 2 0	4	5½ 6	4 13 0	0 12 0	Sept. 1873
7000	Old Treburgett,* s-l, ordinary shares	1 0 0	⅝	⅝ ¾	0 0 9	0 0 9	Feb. 1874
9000	Old Treburgett,* s-l (10 per ct. pref.)	0 10 0	½	½ ⅝	0 0 10½	0 0 10½	Feb. 1874
5694	Pedn-an-drea, t, Redruth§	9 2 0	—		0 5 0	0 5 0	Nov. 1871
5000	Penhalls, t, St. Agnes	3 0 0	2	1½ 1¾	3 7 0	0 2 0	Oct. 1874
50000	Penstruthal, t, c, Gwennap	2 0 0	⅝	½ ⅝	0 1 0	0 1 0	Nov. 1873
6000	Phœnix, t, c, Linkinhorne§	4 13 4	5	4 5	39 19 10	0 4 0	Nov. 1872
1772	Polberro, t, St. Agnes	15 0 0	—		1 12 6	0 5 0	Mar. 1872
18000	Prince Patrick,* s-l, Holywell	1 0 0	—	3¾ 4	0 7 0	0 2 0	July 1874
1120	Providence, t, Lelant†§	16 16 7	4¾	5 5½	104 12 6	0 10 0	Sept. 1872
2000	Queens, s-l, Holywell*	2 0 0	—		0 2 0	0 2 0	Sept. 1874
12000	Roman Gravels, l, Salop*	7 10 0	14	13 14	4 2 0	0 8 6	Aug. 1874
10000	Shelton, cl, t, St. Austell	1 0 0	—		0 1 0	0 1 0	Feb. 1872
512	South Caradon, c, St. Cleer	1 5 0	100	100 120	717 0 0	2 0 0	Oct. 1874
5000	South Carn Brea, c, t, Illogan	1 17 6	1¼	1½ 1¾	0 10 0	0 2 6	July 1872
6000	South Darren, l, Cardigan*	3 6 6	—		1 1 6	0 1 6	Nov. 1870
10000	So. Pr. Patrick,* s-l.(8000 sh. issued)	1 0 0	2⅛	3	0 2 0	0 2 0	Oct. 1874
8771	St. Just Amalgamated, t*	3 10 0	—		0 9 0	0 4 0	Nov. 1871
12000	Tankerville, l, Salop*	6 0 0	7¼	7 7¼	3 8 0	0 6 0	Feb. 1873
6000	Tincroft, c, t, Pool, Illogan†	9 0 0	31	30 31	47 13 6	0 5 0	Nov. 1874
15000	Tretoil,* t, i, Bodmin	2 0 0	—		0 1 0	0 1 0	Mar. 1874
4000	Trumpet Consols, t, Helston§	7 0 0	1	1 1⅛	9 11 0	0 10 0	Nov. 1872
15000	Van, l, Llanidloes*	4 5 0	23	22½ 25	13 9 6	0 10 0	Oct. 1874
3900	W. Chiverton, l, Perranzabuloe†§	10 10 0	2¾	1¾ 2	52 10 0	0 5 0	June 1873
512	West Tolgus, c, Redruth	98 0 0	80	73 75	2 5 0	1 5 0	Oct. 1874
2048	West Wheal Frances, t, Illogan	27 3 9	9¼	9 10	3 12 6	0 5 0	Oct. 1872
512	Wheal Basset, c, Illogan†	5 2 6	25	17½ 22½	638 10 0	1 10 0	Aug. 1872
4295	Wheal Kitty, t, St. Agnes	5 4 6	6	5 5½	11 17 0	0 2 6	Sept. 1874
896	Wheal Margaret, t, Uny Lelant§	15 17 6	—		82 2 3	0 10 0	May 1872
10000	Wheal Mary, t, St. Dennis*	5 0 0	—		0 1 0	0 1 0	Jan. 1873
80	Wheal Owles, t, St. Just§	76 5 0	70	60 70	522 10 0	4 0 0	Aug. 1872
12000	Wheal Russell, c, Tavistock	1 0 0	—		0 3 9	0 1 0	Oct. 1874
10000	Wheal Whisper, t, c, Warleggan*	1 0 0	—		0 1 6	0 0 6	May 1873
25000	Wicklow, c, sul, i, Wicklow	2 10 0	—		52 9 0	0 2 6	Mar. 1872

FOREIGN DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Clos. Pr.	Total divs.	Per share.	Last paid
35500	Alamillos, l, Spain*†	2 0 0	2	1¼ 1¾	1 5 9	0 2 0	Sept. 1874
30000	Almada and Tirito Consol., s*†	1 0 0	¾	⅜ ⅝	0 4 3	0 1 0	May 1873
20000	Australian, c, South Australia†	7 7 6	1¾	1½ 1¾	0 11 6	0 2 0	July 1873
10000	Battle Mountain,* c, (6240 part pd.)	5 0 0	—		0 10 0	0 10 0	Nov. 1872
15000	Birdseye Creek, g, California*	4 0 0	2⅜	2¼ 2½	0 14 0	0 2 6	June 1874
6000	Bensberg, l, Germany*	10 0 0	—		0 17 4	0 8 0	July 1873
12320	Burra Burra,* c, So. Australia	5 0 0	—		56 0 0	0 10 0	Oct. 1872
20000	Cape Copper Mining,*† So. Africa	7 0 0	29	28 29	17 15 0	1 0 0	Sept. 1874
40000	Cedar Creek, g, California*	5 0 0	1⅜	1½ 1¾	0 5 0	0 2 6	June 1873
30000	Central American Association*†	0 16 6	—		0 6 0	0 1 0	July 1869
15000	Chicago, s, Utah*	10 0 0	—		0 16 0	0 4 0	Sept. 1873
21000	Colorado Terrible, s-l, Colorado*†	5 0 0	3¾	3¾ 4	0 9 6	0 1 6	July 1874
76162	Don Pedro North del Rey*†	0 16 0	¾	¼ ½	2 5 9	0 2 0	Mar. 1872
93500	Eberhardt and Aurora, s, Nevada*†	10 0 0	5⅛	4½ 5	1 0 0	1 0 0	July 1871
2352	Eldorado, g, Nova Scotia*	10 0 0	—		2 5 0	0 15 0	June 1873
60000	Emma,* g, s, Utah (25,000 fully pd.)	20 0 0	1⅜	1 1¼	3 12 0	0 6 0	Dec. 1872
70000	English and Australian, c† S. Aust.	2 10 0	2	1¾ 2	2 7 3	0 2 6	Mar. 1873
15000	Ferguson, g, California*	2 0 0	—		0 3 0	0 3 0	April 1872
30000	Flagstaff, s, Utah*	10 0 0	1⅞	1½ 2	4 2 0	0 5 0	July 1873
25000	Fortuna, l, Spain*†	2 0 0	4¾	4¼ 4¾	4 6 10	0 2 6	Sept. 1874
30000	Gold Run, hyd.	1 0 0	⅝	¼ ½	0 2 4	0 0 4	Oct. 1872
68000	Kapunda Mining Co. Australia†	1 3 0	¼	⅛ ¼	0 2 4	0 0 6	June 1873
20000	Last Chance, s,* Utah	5 0 0	1⅛	¾ 1¼	0 14 0	0 2 0	July 1873
15000	Linares, l, Spain*†	3 0 0	4	3½ 3¾	14 14 2	0 3 4	Sept. 1874
7837	Lusitanian, Portugal*† (£5 shares)	3 10 0	1¼	¾ 1¼	1 11 6	0 1 6	Mar. 1873
15000	Mammoth Copperopolis of Utah, c, s	10 0 0	—		0 5 0	0 5 0	Dec. 1872
5000	Mountain Chief, s, Utah*	10 0 0	—		0 4 0	0 4 0	Jan. 1873
18000	Prussian Mining & Ironworks, cl, i.	30 0 0	—		6 0 0	3 0 0	July 1873
10000	Pontgibaud, s-l, France†	20 0 0	21	19 21	15 16 8	0 19 9	June 1874
100000	Port Phillip, g, Clunes*†	1 0 0	¾	½ ¾	1 8 0	0 1 0	Jan. 1872
54000	Richmond Consols, s, Nevada*†	5 0 0	7	6¾ 7¼	1 16 6	0 5 0	July 1874
120000	Scottish Australian Mining Co.*†	1 0 0	1¾	1½ 1¾	15 per cent.		May 1874
112500	Sierra Buttes, g, California*†	2 0 0	2	1¾ 2¼	1 8 0	0 2 0	Dec. 1873
60000	South Aurora, s, Nevada*	5 0 0	⅝	⅜ ¾	0 14 2	0 2 0	Nov. 1873
15000	Sweetland Creek, g, California*†	4 0 0	2¾	3 3¼	2 18 0	0 2 0	Sept. 1874
20000	Tolima, g, s* (6000 sh. are £5 f. pd.)	4 0 0	3½	3 3½	0 11 6	0 6 6	May 1874
500	Westphalian, s-l, c, Prussia*	20 0 0	—		54 0 0	20 0 0	Dec. 1873
15000	Western Andes, s* (8000 £5 fy. pd.)	3 10 0	3¼	3 3¼	1 3 7	1 0 0	Aug. 1874

NON-DIVIDEND FOREIGN MINES.

Shares.	Mines.	Paid.	Last Pr.	Clos. Pr.	Last Call.
20000	Anglo-Australian, g, Victoria*	2 10 0	—		Sept. 1872
20000	Australian United, g, Victoria*†	2 10 0	1½	1¼ 1½	Fully pd.
3000	Bellavista, s, Peru* (£10 shares)	10 0 0	—		Fully pd.
30000	Blue Tent, hyd., California	5 0 0	5¼	5 5¼	Fully pd.
50000	Braganza, g, Brazil*†	0 15 0	—		Oct. 1870
12000	Camp Floyd, s, Utah*	10 0 0	—		Fully pd.
35000	Cesena Sulphur Company, Romanga, Italy*	10 0 0	—		Fully pd.
50152	Chontales, g, s, Nicaragua*† (and 12,542 of £1 15s.)	2 0 0	⅝	⅜ ⅝	Fully pd.
6000	Clifton, s, Colorado*	5 0 0	—		Feb. 1872
10000	Crescent, g, Plumas County, California*	10 0 0	—		Fully pd.
100000	Cuiaba, g, Minas Geraes, Brazil*	0 17 6	—		June 1872
10000	Douglas, s, Georgetown, Col.	5 0 0	—		Fully pd.
7500	East Sheboygan Preference* (40,000 ordinary shares)	2 0 0	—		Fully pd.
35000	Excelsior Hydraulic Gold Washing Co., California*	6 0 0	—		Dec. 1871
60000	Exchequer, g, s, California*	1 0 0	—		Fully pd.
55000	Frontino and Bolivia, g, New Granada*†	2 0 0	⅝	½ ¾	Fully pd.
50000	General Brazilian, g*	1 0 0	—		Fully pd.
10000	Goetzel Tunnel Co., Georgetown, Col.	7 0 0	—		Fully pd.
40000	Holcombe Valley, g,* California	1 0 0	1	¾ 1	July 1873
6000	Hornachos,* s-l, (£10 shares)	9 0 0	—		Jan. 1874
20000	Imperial Brazilian Collieries, Brazil*	5 0 0	—		Fully pd.
20000	Independence, g, California*	5 0 0	3¼	2¾ 3¼	Fully pd.
20000	I. X. L., g, s, California*	5 0 0	—		Fully pd.
50000	Javali, g, Nicaragua*	2 0 0	½	¼ ½	Fully pd.
12000	Lanestosa,* l, z, Viscaya, Spain (£2 shares)	1 10 0	—		Jan. 1874
65000	London and California, g*†	2 0 0	⅝	½ ⅝	Fully pd.
75000	Malabar, g, Colombia* (65000 issued)	1 0 0	¾	⅝ ¾	Fully pd.
4000	Malaga, l, Spain*	10 0 0	—		Fully pd.
40000	Malpaso, g, Colombia* (10000 pref. shares, 10s. paid)	1 0 0	1	¾ 1	Fully pd.
12000	Menzenberg, c, Honnef, Germany*	5 5 0	—		Fully pd.
14000	Montague & Waverley Gold Quartz Crushing Co.,* N.Scot.	2 0 0	—		Allotment
6000	Monte Loreto, g, c, Italy*	5 0 0	—		Fully pd.
15000	New Pacific, g, s, Nevada*	0 7 6	⅜	⅛ ⅜	Jan. 1874
66000	New Quebrada, c, Venezuela*	5 0 0	3⅜	3 3½	Fully pd.
50000	New Rosario, s, Mexico*	1 0 0	¾	½ ¾	Fully pd.
20000	New Zealand Kapanga, g, Coromandel*	5 0 0	3	2¾ 3¼	Fully pd.
10000	Newfoundland,* l	10 0 0	—		Fully pd.
20000	North American, g*	4 0 0	—		Fully pd.
50000	Panulcillo, c, Chili*†	4 0 0	1	¾ 1¼	Fully pd.
80000	Pestarena United, g, Italy*†	3 0 0	—		Fully pd.
50000	Rica, g, Colombia* (40000 issued)	1 0 0	½	¼ ½	Fully pd.
100000	Rio Tinto,* c, Huelva, Spain	9 0 0	9	8 9	Jan. 1874
100000	Rossa Grande, g, Brazil*† (£1 shares)	0 19 0	¼	⅛ ¼	July 1872
32500	Ruby Consolidated, s, Nevada*	10 0 0	—		Fully pd.
30000	Russia, c, Orenburg and Uta*†	10 0 0	3	2¼ 2¾	Fully pd.
25000	San Pedro, c, Chili*	2 0 0	—		Fully pd.
30000	Santa Barbara,* g, Brazil (10000 new 10s. sh., 2s. 6d. pd.)	0 9 6	⅞	¾ ⅞	Mar. 1872
10000	Silver Plume, s, Colorado*	1 0 0	—		Fully pd.
87500	Snowdrift, s, Colorado*	2 0 0	—		Fully pd.
£253000	St. John del Rey*† (£5 stock and its multiples can be dealt in)		250	240 250	"Stock"
26000	St. Lawrence, g,* California	5 0 0	—		Fully pd.
25000	Star of Nevada, s* (12000 issued)	2 0 0	—		Fully pd.
30000	Tecoma, s, Utah*	10 0 0	½	⅛ ⅝	Fully pd.
20000	Thornhill Reef, g, Australia*	1 0 0	½	¼ ½	Fully pd.
43174	United Mexican, s, Mexico*†‡	28 7 8	2½	2¼ 2¾	May 1868
14000	Utah, g, s-l, Utah*	5 0 0	¾	¼ ¾	Fully pd.
25000	Victoria (London)*, c, Australia (25,000 sh. 16s. pd.)‡	1 0 0	⅜	¼ ⅜	Fully pd.
75000	Yorke Peninsula, c, South Australia	1 0 0	⅜	¼ ½	Fully pd.

§ Have made calls since last dividend was paid.

NON-DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Clos. Pr.
25000	Aberdaunant, l, Llanidloes*	1 0 0	1⅛	1¼ 1½
10000	Aberystwith,* s-l, Cardigan	4 0 0	—	
12000	Assheton, l, Carnarvonshire*	5 0 0	1¾	1¼ 1½
50000	Ballycummisk,* c, Schull	2 0 0	—	
12000	Bedford Consols, c, Tavistock	1 7 0	—	
12000	Bedford United, c, Tavistock	1 17 6	⅝	½ ⅝
25000	Belstone,* c, Devon (3000 sh. 7s.6d. pd.)	1 0 0	2	1½ 2
5000	Blue Hills, t, c, St. Agnes	2 4 6	—	
15000	Bog, l, Shropshire*	2 0 0	¼	⅛ ⅜
12000	Bowden Hill,* mn (7000 sh. £1 pd.)	0 15 0	—	
20000	Brynambor, l, Cardigan	1 0 0	—	
30000	Burrow & Butson,* t, c, bl, St. Agnes	1 0 0	—	
20000	Burra Burra,* t, c, bl, Kenwyn	1 0 0	—	
5468	Bwadrain, s-l, Cardigan* (£4 shares)	3 16 0	—	
4896	Bwlch Consols, s-l, Cardigan*‡ (£5 sh.)	4 17 6	—	
12000	Cae Gynon, l, Cardiganshire*†	2 0 0	—	
30000	Caldbeck Fells, l, Cumberland*	2 0 0	—	
600	Carden* (£10 shares)	4 0 0	—	
5584	Carn Camborne, c, t, Camborne	5 3 6	¼	⅛ ¼
10000	Castle Gate, t, St. Colomb*	1 0 0	—	
10000	Cathedral, t, c, Gwennap*	1 10 0	1⅛	⅞ 1⅛
3000	Cefn Brwyno (lim. to £5)	5 0 0	—	
10000	Central Van,* l, bl, Llanidloes	5 0 0	—	
24000	Court Grange, s l, Cardiganshire	0 15 0	⅞	¾ ⅞
24051	Crenver & Abraham*† (25949 sh. £1)	2 0 0	½	¼ ½
15000	Cwm Bychan,* s.l, Montgomery	1 0 0	—	
15000	Cwm Nant Ddu,* l, Montgomery	1 0 0	—	
10000	Cwm Ricket and Maesnant, l, Mont.*	2 11 0	—	
256	Cwmystwith, l, Cardiganshire‡	60 0 0	—	
15000	Deer Park, t, c, Tavistock	2 0 0	—	
7500	Denbighshire Consolidated, l*	3 0 0	3	2½ 3
656	Ding Dong, t, Gulval	49 14 6	—	
12000	Dolwen Consols, l, Cardigan*	1 0 0	—	
10000	Duchy Great Consols, c, Calstock	3 0 0	—	
40000	Dunsley W. Phœnix, t, Linkin.*	2 0 0	—	
15000	Dyliffe,* l, Montgomeryshire	6 0 0	—	
512	East Basset, c, Redruth†‡	73 10 0	9	8 9
800	East Black Craig,* l., Scotland	25 0 0	—	
3000	East Boscaswell, t, St. Just	5 0 0	—	
6000	East Bottle Hill Cons., t, c, Plympton	3 0 0	—	
4000	East Chiverton, l, Perranzabuloe	6 5 0	1⅜	1¼ 1⅜
3000	East Dolcoath, t, Illogan	10 0 0	—	
6000	East Grenville, c, Camborne	7 2 6	⅜	⅜ ½
4000	East Gunnislake and So. Bedford, c.	13 13 0	—	
50000	East Llangynog, l, Montgomery*	2 0 0	—	
30000	E. Nant-y-mwyn,* l, Brecknockshire	1 0 0	—	
15000	East Van, l, Llanidloes*	5 0 0	¾	¾ 1
20000	Elgar,* s-l, Cardiganshire	1 0 0	—	
12800	Excelsior, t, c, Stoke Climsland	0 10 6	—	
5000	Flintshire,* l	6 0 0	—	
12800	Florence and Tonkin United* l.	0 10 0	—	
10000	Franco Consols, t, c*	1 0 0	—	
5000	Frank Mills, l, Christow	4 16 0	⅝	½ ⅝
8000	Fronvellan, l, Mont.* [4000 sh. fy. pd.]	0 15 0	—	
18000	Furze Hill, t, Tavis.*	1 0 0	—	
3950	Gawton, c, Tavistock	3 15 0	⅝	¼ ⅜
5000	Gem, t, Whitchurch	2 10 0	—	
12500	Gilfach, s-l, Llangadock	2 0 0	—	
10000	Glan Severn, s-l, Flintshire	1 0 0	—	
15000	Gobbett, t, Dartmoor	1 0 0	1⅜	1¼ 1⅜
12000	Goginan, and Level Newydd, Card., l	1 5 0	—	
7500	Gorsedd and Celyn Level, l, Flint	2 0 0	1¼	1 1½
10000	Great Mountain, s-l, Carnarvon*	1 0 0	—	
2000	Great Retallack, s-l, b, Perranzabuloe	3 8 0	—	
4400	Gt. West Chiverton, s-l (8000 shares)	2 10 0	—	
4096	Great Wh. Lovell, t, Wendron	2 15 0	—	
18000	Grosvenor,* l, Halkin	1 0 0	—	
10240	Gunnislake (Clitters'), t, c	5 5 0	1½	1¼ 1⅜
12000	Islay, l, Scotland*	1 0 0	—	
6000	Keswick United, l*	5 0 0	—	
6000	Killifreth, t, Chacewater	1 2 0	¾	
50000	Kingston Valley, l, Cornwall	1 0 0	1¼	1⅛ 1¼
12000	Ladywell,* l, Salop	2 10 0	3	2¾ 3
2500	Levant, c, t, St. Just	8 10 0	—	
10000	Llanarmon, Denbigh	2 0 0	—	
20000	Llanidloes Wh. Van,* l, Montgomery	1 0 0	—	
30000	Llanrwst, l, Carnarvon	2 0 0	2½	2¼ 2½
17000	Llywernog, l, Cardiganshire	0 16 0	—	
9000	Marke Valley, c, Caradon*	4 18 6	1⅛	1 1¼
6000	Medlyn Moor, t, Wendron	0 12 10	—	
8000	Mellanear, c, Hayle*	4 0 0	—	
25000	Mount Dalby, s-l, Isle of Man*	1 0 0	—	
6144	Nangiles, t, c, Kea	9 14 0	½	¼ ½
4000	Nanty, l, Montgomeryshire*	1 0 0	—	
2000	Nant y-Ricket,* c, l, Montgom.	5 0 0	—	
10000	New Beldon, l, Northumberland*	1 0 0	—	
8000	New Dolcoath, t, c, Camborne*	3 0 0	1⅛	1 1⅛
4096	New East Lovell, t, Wendron	0 10 0	—	
2000	New Hendra, t, Breage	2 1 0	⅞	¾ ⅞
6000	New Hobb's Hill, t, Liskeard*	2 0 0	—	
6400	New Pembroke, t, c, Par Station	5 4 6	⅞	¾ ⅞
5000	New Rosewarne, c, Gwinear	4 12 0	¾	½ ¾
3000	New Silver Rake, s, l, Flintshire	5 0 0	—	
3200	New South Merllyn, l, Flint*	2 10 0	—	
5000	New St. Blazey,* t, Cornwall	0 17 6	—	
1200	New West Rosewarne, t, Gwinear	8 10 0	1½	1 1½
4000	New Wh. Grylls, t, Perranuthnoe	0 16 6	—	
1200	New Wh. Seton, c, Camborne	36 16 8	⅝	½ ⅝
25000	North Laxey*	2 0 0	—	
20000	North Prince Patrick,* l, Holywell	1 0 0	1¼	1 1¼
2000	North Wheal Towan, t, c, Illogan	1 19 6	—	
10000	North Pool, c, Illogan* (Reserve 2500)	2 0 0	½	¼ ½
1000	North Rosewarne, c, Gwinear	6 12 6	2	1¾ 2
8000	North Treleigh Wood, t, Redruth*	1 0 0	1	¾ 1
5936	North Treskerby, c, St. Agnes	3 8 10	1⅛	1 1⅛
2000	Old Batholes,* l, Salop	1 10 0	—	
2500	Old Tincroft, c, t, Illogan*	4 0 0	4¼	4 4¼
1024	Parbola, t, Gwinear	1 11 6	1¼	1⅛ 1¼
16923	Parys Mountain,* c, Anglesea	3 0 0	⅜	¼ ⅜
2000	Penhale Wheal Vor, t, c, Helston*	16 15 0	—	
12000	Pennerley, l, Shropshire*	2 0 0	1¾	1½ 1¾
16000	Perkins Beach, l, Salop*	1 0 0	⅜	¼ ⅜
3000	Phœnix, s-l, Perranzabuloe	9 0 0	—	
12000	Plynlimmon, l, Llanidloes*	2 5 0	½	⅜ ½
2000	Prideaux Wood, t, Llanivery	5 0 0	—	
12800	Prince of Wales, c, Calstock‡	1 4 0	⅝	⅜ ½
15000	Rookhope Valley, l, Durham*	4 0 0	¾	
5869	Rosewall Hill and Ransom, t	4 5 0	⅜	¼ ⅜
6000	Rosewarne United, c, t, Gwinear	1 10 0	½	
3000	Russell, s-l, Swymbridge	0 6 0	—	
6123	South Condurrow, t, c, Camborne‡	6 5 6	3¼	4 4½
512	South Dolcoath, c, t, Redruth	12 5 0	1⅛	1 1⅛
5000	South Great Work, t, St. Hilary	2 14 0	—	
12000	South Kit Hill, t, Callington*	1 0 0	—	
12000	South Lisburne, l, bl, Cardigan*	0 12 6	—	
700	South Margaret, t, Ludgvan	1 10 0	—	
12000	South Phœnix, t, c, Linkinhorne*	1 0 0	¾	
18000	South Roman Gravels, l, Salop*	1 10 0	¾	⅝ ⅞
6000	South Roskear, t, c, Camborne	6 0 0	5	4 5
6000	South Tolcarne, t, c, Camborne	0 18 0	⅜	⅛ ⅜
12000	South Van,* l, Montgomeryshire	1 0 0	—	
3000	South Ward, l, Beerferris	3 0 0	1¼	1 1¼
937	South Wheal Crofty, c, Illogan	33 10 10	9½	9 10
496	South Wh. Frances, c, Illogan†	48 3 9	9	10 12
6000	South Wheal Kitty, t, St. Agnes	0 5 0	—	
4000	St. Agnes Consols, t*	5 0 0	5½	5½ 6
14000	St. Blazey t.* (£2 10s. shares)	2 0 0	1½	1¼ 1½
10000	St. David's,* s-l, Holywell	1 0 0	1	1 1¼
940	St. Ives Consols, t, St. Ives	12 15 0	8	6 7
6000	St. Lawrence, Amal., l, Flintshire*	2 0 0	—	
16000	Success, &c., l, Derb. (12,000l. called)	1 0 0	—	
12000	Tamar Consols, s-l, Lifton, Devon	1 0 0	1	⅞ 1
3879	Tamar Valley, s-l, Beeralston	1 10 0	—	
6400	Teesdale,* l, Durham	0 5 0	¾	½ ¾
4000	Teign Valley, l, bar., Bridford	1 0 0	—	
3526	Tin Valley, St. Neot	1 13 6	—	
5000	Treleigh Wood, t, Redruth	4 8 0	2	1½ 2
1024	Treleigh Wood United, t, Redruth	1 5 0	¾	½ ¾
547	Trelyon Consols	15 0 0	⅝	½ ⅝
12000	Trethellan, s-l, Crantock*	2 0 0	—	
7500	Tresellyn, t, Altarnun	2 10 0	—	
2800	Trevarrack, t, c, Uny Lelant	4 10 0	2¼	2¼ 2¾
200	Tucker's Downs, Camborne	2 0 0	—	
12000	Tyllwyd,* s-l, Cardigan	1 0 0	1⅜	1¼ 1⅜
6000	Unity Wood, t, c, Kenwyn	2 17 6	⅜	⅛ ⅜
20000	Van Consols, l, Llanidloes*	2 10 0	2½	2¼ 2½
1000	Vaughan, s-l, Cardigan	9 0 0	—	
20000	Victoria, t, Perranzabuloe	1 0 0	—	
6000	West Basset, c, Illogan†‡	3 16 8	8¼	8½ 9
20000	West Bryn Celyn,* l, Flintshire	1 0 0	—	
100	West Condurrow, t, c, Camborne	5 0 0	—	
10000	W. Esgair Lle, l, Card.*	2 0 0	2¼	2¼ 2¾
5000	West Godolphin, t, c, Breage	1 10 6	1⅛	1 1⅛
12000	West Goginan,* Cardiganshire	2 0 0	2¼	¾ 1¼
15000	West Great Work, t, Breage*	1 0 0	1¼	1 1¼
10000	West Llangynog, s-l, Montgomery	2 0 0	—	
12000	West Maria & Fortescue, t, c, Lamer.	4 9 0	¼	⅜ ⅝
50000	West Milwr, s-l, Flint	1 0 0	—	
12000	West Pant-y-Go, s-l, Flint*	1 0 0	—	
3000	West Phœnix, t, Linkinhorne	0 18 0	—	
1403	West Polbreen, t, St. Agnes	3 5 0	—	
10000	West Roskear, t, s-l, bl, c, Camborne	0 2 0	—	
12000	West Tankerville, l, Salop*	8 0 0	⅝	⅜ ⅝
2000	West Wheal Lucy, t, c, Lelant	1 10 6	—	
6000	West Wheal Gorland, t, c	3 14 0	—	

NON-DIVIDEND MINES—Continued.

Shares.	Mines.	Paid.	Last Pr.	Clos. Pr.
292	West Wheal Seton, c, Camborne†	55 15 0	22½	20 22½
6000	Wheal Agar, c, Illogan	10 0 0	1⅛	1 1⅛
5000	Wheal Allen,* s-l	1 0 0	—	
6000	Wheal Argus, t, Sancreed	0 10 0	—	
25000	Wheal Arthur, t, c, Calstock*	1 0 0	—	
741	Wheal Basset and Grylls, t	9 18 6	—	
6000	Wheal Coates, t, St. Agnes	2 0 0	—	
6000	Wheal Crebor, c, Tavistock	4 1 0	1¼	1¼ 1½
8400	Wheal Emma, t, c, Buckfastleigh	1 10 0	—	
5179	Wheal Grenville, c, Camborne*	9 7 6	5¼	5 5½
2048	Wheal Jane, t, Kea	2 13 10	2⅞	2¼ 2½
12000	Wheal Jewell, c, Marazion	1 1 0	—	
12000	Wh. Mary Hutchings,* t, Plympton	1 11 0	1¼	1¼ 1½
3000	Wheal Peevor, t, Redruth	5 2 6	8	6 7
6000	Wheal Prussia, t, Redruth	2 0 0	4¼	4¼ 4½
10000	Wheal Ruby, t, Ludgvan	1 0 0	—	
4568	Wheal Sparnon, t, Redruth	4 0 0	—	
1000	Wheal Speedwell, t, c, Breage	1 0 0	—	
4096	Wheal Uny, t, c, Redruth	12 9 6	3½	3¼ 3¾
6000	Wheal Vincent, t, Alternun	1 11 0	—	
12000	Willoughby, l, Llanrwst	2 10 0	—	
10000	Wye Valley, l, Montgomery*	3 0 0	3⅛	3 3¼
1200	Zennor, t, Cornwall	5 0 0	—	10½ 10¾

IRON AND COAL COMPANIES.

Shares.	Company.	Paid.	Price.	
£15	Albion Steel and Wire Co. [L.]	£10 0 0	11	10½ dis.
5	Alltami Colliery Co. [L.]	5 0 0	¼ dis.	par
100	Ashbury Co. [L.]	90 0 0	44	34 dis.
10	Bagnall, John, and Sons [L.]	10 0 0	3	2½ dis.
10	Benhar Coal Co. [L.]	10 0 0	4½	5 pm.
50	Bilbao Iron Ore Co. [L.]	35 0 0	2	2½ pm.
10	Bilson & Crump Meadow Coll. Co. [L.]	10 0 0	1	1½ pm.
25	Birmingham (Blakeley Hall) Coal and Ironstone Company [L.]	25 0 0		—
—	Ditto 10 p. ct. bonds of £25 each	—	2	2½ pm.
4	Blaen Cwmbach Coal Co. [L.]	4 0 0	par	¼ pm.
50	Blaenavon Iron and Steel Co. [L.]	37 10 0		—
50	Blochairn Iron Co. [L.]	15 0 0		—
100	Bolckow, Vaughan, and Co. [L.]...A	35 0 0	20	20½ pm.
30	Ditto ditto ...B	30 0 0	18¾	19 pm.
50	Bowling Iron Co. [L.]	50 0 0	25	30 pm.
5	Brynkinalt Collieries [L.]	5 0 0		—
50	Britannia Ironworks [L.]	25 0 0		—
50	Brown, Bailey, and Dixon [L.]	40 0 0	23	22 dis.
100	Brown, John, and Co. [L.]	70 0 0	10½	11 pm
100	Cammell and Co. [L.]	80 0 0	5¾	5¼ dis.
20	Cannock and Huntingdon Coal [L.]	2 0 0		—
10	Cardiff & Swansea St. Coal Co. [L.]	4 0 0	⅝	⅜ dis.
10	Cardigan Steel and Wire Co. [L.]	7 10 0	7⅛	6⅞ dis.
10	Central Swedish Iron and Steel [L.]	10 0 0	4	6
5	Chapel House Colliery	5 0 0	½ dis.	par
50	Charlton Iron Co. [L.]	35 0 0	19½	18½ dis.
50	Chatterley Iron Co. [L.]	40 0 0	12	11½ dis.
10	Chillington Iron Co. [L.]	10 0 0	5⅛	4½ dis.
1	Clee Hill Colliery Co. [L.]	1 0 0	⅜	½ dis.
10	Consett Iron Co. [L.]	7 10 0	15¼	15¾ pm.
1	Consett Spanish Ore [L.]	1 0 0	¼	½ dis.
50	Cooke, William, and Co. [L.]	20 0 0	6½	5½ dis.
20	Darlington Iron Co. [L.]	8 0 0	2	1¼ dis.
10	Davis's Merthyr Colliery Co. [L.]	10 0 0		—
50	Davy Brothers [L.]	22 10 0	14½	15 pm.
32	Ebbw Vale Co. [L.]	29 0 0	7	6 dis.
6	Fairbairn Engineering	5 0 0	2½	1½ dis.
10	General Mining Ass. [L.] (£1 returned)	9 0 0	7	9
10	Glasgow Port Washington [L.]	6 0 0	3¾	3½ dis.
20	Great Western Coal Co. [L.]	17 0 0		—
2	Gwyngwillim Colliery Co. [L.]	2 0 0		—
15	Hopkins, Gilkes, and Co. [L.]	10 0 0	3	2½ dis.
10	Ifton Rhyn Colliery Co. [L.]	7 10 0	7	6½ dis.
50	Knowles, Andrew, and Sons [L.]	17 0 0	1	1¼ pm.
10	Llay Hall Coal, Iron, & Firebrick [L.]	10 0 0	½ dis.	par
5	Littledean Woodside Coll. Co. [L.]	5 0 0		—
10	Llangennech Colliery Co. [L.]	10 0 0		—
50	Llynvi, Ogmore, & Tondu Co. [L.]	42 0 0	12	10 dis.
13	Llynvi Valley Col. Co. [L.] 15 p.c. pref.	10 0 0		—
10	Lydney and Wigpool Iron Ore [L.]	7 5 0	2½	1½ dis.
10	Marbella Iron Ore Co. [L.]	10 0 0	6	5½ dis.
10	Merry and Cuninghame [L.]	3 10 0	¼ dis.	¼ pm.
6	Mersey Steel and Iron Co. [L.]	5 0 0		—
5	Mold Argoed Colliery Co. [L.]	5 0 0	par	½ pm.
10	Monkland Iron and Coal Co. [L.]	10 0 0	6¼	6 dis.
10	Midland Iron Co. [L.]	5 0 0	5¾	6¼ pm.
4	Mwyndy Iron Ore [L.]	3 10 0	1½	1 dis.
100	Nant-y-Glo and Blaina (8 p.c. pref.)	100 0 0	47	50
10	Neepsend Rolling Mills [L.]	3 0 0	par	½ pm.
1	Nerbudda Coal and Iron	0 8 0	¼	⅛ dis.
20	New Sharlston Collieries [L.] Pref.	17 0 0	8½	7½ dis.
10	Newport Abercarn Coal Co. [L.]	5 0 0		—
10	Northmptn. Coal, Iron & Wagon [L.]	8 0 0		—
10	Northfield Iron Co. [L.]	6 0 0	2¾	1¼ dis.
35	Palmer's Shipbuilding and Iron [L.]	25 0 0	6½	6 dis.
100	Parkgate Iron Co. [L.]	65 0 0	29½	30½ pm.
20	Patent Shaft and Axletree [L.]	10 0 0	5¾	6 pm.
20	Pelsall Coal and Iron [L.]	15 0 0	3	1 dis.
50	Phœnix Bessemer Co. [L.]	40 0 0	14½	13½ dis.
50	Rhondda Merthyr Coal Co. [L.]	50 0 0	20	25 pm.
50	Rhymney Iron Co. [L.]	50 0 0	37	39
10	Richards and Company [L.]	4 0 0	½	1 pm.
100	Sandwell Park Colliery Co. [L.]	100 0 0		—
50	Ditto B.	10 0 0		—
50	Shotts Iron Co. [L.]	50 0 0	27½	28½ pm.
100	Sheepbridge Iron and Coal [L.]	55 0 0	27	28 pm.
10	Sheffield Forge and Rolling Mill [L.]	2 10 0	⅜	¾ pm.
50	Silkstone & Dodworth Cl. & Iron [L.]	17 0 0	¾	¼ dis.
5	Silkstone Fall Colliery Co. [L.]	5 0 0	3	1 dis.
20	Skerne Ironworks [L.]	20 0 0		—
50	Somorrostro Iron Co. [L.]	50 0 0		—
20	South Wales Coal Co. [L.]	17 0 0		—
100	Staveley Iron and Coal Co. [L.]	60 0 0	57¼	57½ pm.
100	Ditto ditto New	10 0 0	9¾	10 pm.
10	Stranton Iron and Steel Co. [L.]	8 0 0		—
20	South Cleveland Ironworks [L.]	20 0 0	9	7 dis.
100	Thames Iron Company	100 0 0		—
7½	Titanic Iron and Steel	5 0 0		—
20	Ulverston Mining Co. [L.]	10 0 0	1	½ dis.
1	United Bituminous Collieries [L.]	1 0 0		—
10	Vancouver Coal [L.]	6 0 0	¾	1¼ pm.
100	Vickers, Sons, and Co. [L.]	100 0 0	35	45 pm.
50	Welsh Ironworks Co. [L.]	50 0 0		—
25	W. Cumberland I. and Steel [L.]	20 0 0	6¼	5¾ dis.
10	West Mostyn Coal [L.] (12 p.c. pref.)	2 0 0		—
10	Whitehaven Iron Co. [L.]	10 0 0		—
100	Wigan and Whiston Coal Co. [L.]	70 0 0		—
100	Wigan Coal and Iron Co. [L.]	75 0 0		—

WAGON COMPANIES.

10	Birmingham Wagon Co. [L.]	10 0 0	17¾	18¼
20	British Wagon Co. [L.]	10 0 0	4⅜	4⅝ p
10	Gloucester Wagon Co. [L.]	10 0 0	4¼	4½ p
10	Metropolitan Wagon Co. [L.]	5 0 0	3	3½ p
50	Midland Wagon Co. [L.]	50 0 0	90	91
20	North Central Wagon Co. [L.]	20 0 0	14	15 p
10	North of England Wagon Co. [L.]	3 10 0	par.	½ p
10	Parkgate Wagon Co. [L.]	5 0 0	3⅜	3½ p
10	Scottish Wagon Co. [L.]	10 0 0	1	2 p
20	Sheffield Wagon Co. [L.]	15 0 0	4½	4⅝ p
10	Yorkshire Wagon Co. [L.]	10 0 0	4⅜	5 p

TELEGRAPH COMPANIES.

"St."	Anglo-American	100 0 0	75⅛	76⅛
10	Brazilian Submarine	10 0 0	7	7⅞
10	Cuba, 10 per cent. preference	2 10 0	6	6⅝
20	Direct United States Cable	20 0 0		—
10	Eastern, 6 per cent. debentures	10 0 0	7⅞	8¼
10	East. Exten., Australia and China	10 0 0	7⅞	8⅛
10	Globe Telegraph and Trust	10 0 0	6¾	7
10	Ditto, 6 per cent. preference	10 0 0	9⅞	10⅜
10	Great Northern	10 0 0	10⅝	11⅛
25	Indo-European	25 0 0	17⅛	18⅛
10	Mediterranean Extension	10 0 0	3⅜	4¼
10	Ditto, 8 per cent. preference	10 0 0	10½	11
8	Reuters	8 0 0	11	11⅛
"St."	Submarine	100 0 0	205	210
10	West India and Panama	10 0 0	3⅞	4⅜
20	Western and Brazilian	20 0 0	11	11⅛
$1000	Western Union, 7 per cent. Mort. Bonds	$1000	101	103

MISCELLANEOUS.

10	Anglo-Mexican Mint	10 0 0	5⅛	6½
25	Copper Miners of Eng. (7 p. c. pref.)	25 0 0	10½	11⅛
5	Diamond Rock Boring	4 0 0	¼ dis.	¼
5	Gen. Phos. & Chem. Works Co. [L.]	5 0 0		—
1	Glaisdale Whinstone Quarry	1 0 0		—
10	Huntington Copper and Sul. Co.	8 0 0	6	5
10	Silber Light (ord. sh.)	10 0 0		—
10	Tharsis Sulphur and Copper Co.	10 0 0	26¼	27¼

b, blende; cl, coal; c, copper; g, gold; l, lead; s, silver; sl, sla[te]
s-l, silver-lead; t, tin; z, zinc.
* Limited Liability Companies; † quoted on the Stock Exchang[e]
‡ have paid dividends.

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